



# **REMEDIAL INVESTIGATION REPORT**

13500 Paxton Street, Pacoima, California

Prepared for:  
Price Pfister, Inc.

7 February 2003



7 February 2003

Mr. David Young  
California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

Subject: *Remedial Investigation Report* for the Price Pfister Property  
13500 Paxton Street, Pacoima, California  
(EKI A20034.03)

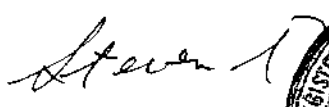
Dear Mr. Young:

On behalf of Price Pfister, Inc., Erler & Kalinowski, Inc. ("EKI") is pleased to submit the enclosed *Remedial Investigation Report* for 13500 Paxton Street in Pacoima, California. EKI has prepared this report to present the results of environmental investigations performed at the Price Pfister property in accordance with previously submitted workplans and our discussions.

On behalf of Price Pfister, EKI requests that the Regional Board review and approve this report. Please contact us if you have any comments or questions regarding the information provided herein.

Very truly yours,

ERLER & KALINOWSKI, INC.

  
Steven G. Miller, P.E.  
Project Manager



cc: Lorraine Sedlak, Black & Decker  
Eileen Nottoli, Allen Matkins



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### LIST OF ABBREVIATIONS AND ACRONYMS

1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
1,2-DCA	1,2-dichloroethane
95% UCL	95 percent upper confidence limit
AE&M	American Etching and Manufacturing
AG&M	Arcadis Geraghty & Miller
ARAR	applicable or relevant and appropriate requirement
AST	above ground storage tank
ASTDR	United States Department of Health and Human Services, Agency for Toxic Substances and Disease Registry
Cal/EPA	State of California Environmental Protection Agency
Calscience	Calscience Environmental Laboratories, Inc.
CCR	California Code of Regulations
CFR	Code of Federal Regulations
Chapman	Chapman Manufacturing/Flynns Plating
cis-1,2-DCE	cis-1,2-dichloroethene
COC	chemical of concern
COPC	chemical of potential concern
CSM	conceptual site model
D&M Steel	D&M Steel/Paragon Precision Products
DPT	direct-push technology
DTSC	Department of Toxic Substances Control
ELCD	electrolytic conductivity detector



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### LIST OF ABBREVIATIONS AND ACRONYMS

EKI	Erler & Kalinowski, Inc.
FHP	free hydrocarbon product
FS	feasibility study
ft <sup>2</sup>	square feet
ft bgs	feet below ground surface
GC	gas chromatograph
HCFC-141b	hydrochlorofluorocarbon-141b
HEAST	Health Effects Assessment Summary Tables
HI	Hazard Index
Holchem/Brenntag	Holchem, Inc./Brenntag West, Inc.
HSC	California Health and Safety Code
InterPhase	InterPhase Environmental, Inc.
IRIS	Integrated Risk Information System
J&E	Johnson and Ettinger vapor intrusion computer model
K <sub>ow</sub>	octanol/water equilibrium partition coefficient
K-Prime	K-Prime, Inc.
LADHS	City of Los Angeles Department of Health Services
LADWP	Los Angeles Department of Water and Power
LAFD	County of Los Angeles Fire Department
Lead Spread	Lead Spread Version 7.0 computer model
MCL	Maximum Contaminant Level
µg/dl	micrograms per deciliter
µg/L	microgram per liter



## REMEDIAL INVESTIGATION REPORT

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### LIST OF ABBREVIATIONS AND ACRONYMS

mg/kg	milligram per kilogram
mg/L	milligram per liter
MS	mass spectroscopy
msl	mean sea level
NCEA	National Center for Environmental Assessment
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OEHHA	Office of Environmental Health Hazard Assessment
PBR	Permit-by-Rule
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PEA/SI	Preliminary Endangerment Assessment/Site Inspection
ppmv	per million by volume
PRG	Preliminary Remediation Goal
Price Pfister	Price Pfister, Inc.
RAO	remedial action objective
RAP	Remedial Action Plan
RBSL	risk-based screening level
RBSL <sub>c</sub>	risk-based screening level based on carcinogenic effects
RBSL <sub>nc</sub>	risk-based screening level based on non-carcinogenic effects
RC	representative concentration
RCRA	Resource Conservation and Recovery Act
R/D	reference dose



## REMEDIAL INVESTIGATION REPORT

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### LIST OF ABBREVIATIONS AND ACRONYMS

RI	Remedial Investigation
RME	reasonable maximum exposure
RWQCB	Regional Water Quality Control Board, Los Angeles Region
SF	slope factor
Site	Price Pfister property located at 13500 Paxton Street, Pacoima, California
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
TCE	trichloroethene
TEPH	total extractable petroleum hydrocarbons
TTLC	Total Threshold Limit Concentration
TVPH	total volatile petroleum hydrocarbons
ULARA	Upper Los Angeles River Area
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
VLEACH	vadose zone leaching computer model
VOC	volatile organic compound
West Hazmat	West Hazmat Drilling Corporation
WWTS	wastewater treatment system



## 1. EXECUTIVE SUMMARY

Erler & Kalinowski, Inc. has prepared this Remedial Investigation ("RI") report on behalf of Price Pfister, Inc. ("Price Pfister") for the property located at 13500 Paxton Street in Pacoima, California ("Site"). This report has been prepared to present the results of soil, soil gas, and groundwater investigations at the Site including findings from investigations completed prior to the RI. Remedial action objectives ("RAOs") and numerical guidelines to assist in attaining RAOs are also proposed in this report. This report has been submitted to the State of California Environmental Protection Agency Regional Water Quality Control Board, Los Angeles Region ("RWQCB") for approval.

The 25-acre facility, which was used for the manufacture of plumbing parts, is currently vacant except for warehousing and shipping operations. Site investigations have identified certain volatile organic compounds ("VOCs"), primarily tetrachloroethene ("PCE"), and non-VOCs, primarily petroleum hydrocarbons as oils and metals, as chemicals of concern. Based on the Site use history, investigations have focused on four areas of the Site: (1) Central Building P Area, which housed degreasing, electroplating, and wastewater treatment operations, (2) Building A Area, which was used for screw machining, (3) Oil Staging Area, which was for waste treatment operations and petroleum storage, and (4) the area next to the former foundry referred to as the Building L Area (Figure ES-1).

Chemical releases have occurred at several nearby locations. In particular, the Holchem/Brenntag West, Inc. facility ("Holchem/Brenntag"), which was used for storage and distribution of chemicals, has had releases of chlorinated and non-chlorinated solvents to groundwater that have impacted groundwater beneath the Price Pfister property (Figure ES-2).

Soil beneath the Site is composed predominately of sands and gravels with some boulders. The depth to groundwater beneath most of the Site is approximately 50 to 60 feet below ground surface ("bgs") and the direction of groundwater flow is generally to the southeast. Near Louvre Street, the depth of groundwater increases to approximately 70 ft bgs and the direction of groundwater flow changes to the southwest. The change of depth and direction of groundwater flow appears to be caused by concealed faults in the vicinity. Groundwater flow in the area west and south of the Site appears to be complex due to the existence of several concealed faults (Figure ES-3).



## Findings Related to VOCs

- **Releases of VOCs at Central Building P Area and Oil Staging Area:** PCE appears to have been released to soil at the Central Building P Area and Oil Staging Area. Released liquid PCE appears to have sorbed completely in soil and did not enter groundwater as a liquid. The PCE in soil at these two locations appears to be a source of PCE in soil gas beneath the Site (Figure ES-4).
- **Reduction of PCE Vapor Concentrations with Soil Vapor Extraction:** After three months of soil vapor extraction, approximately 1,470 pounds of VOCs have been recovered and PCE concentrations in soil have been substantially reduced (Figure ES-5). Soil vapor extraction continues to date.
- **Impact of PCE Vapor on Groundwater:** Localized PCE impacts to groundwater at the Central Building P Area and Oil Staging Area were the result of density driven flow of PCE vapor. Because PCE vapor is heavier than air, PCE vapor sank through soil by the force of gravity to the top of the saturated zone where it dissolved in groundwater. PCE vapor that accumulated on top of the saturated zone has been substantially reduced in concentration by the soil vapor extraction systems operating at the Site (Figures ES-6 and ES-7).
- **VOCs in Groundwater Migrating Onto Site:** Some of the PCE and the majority of other VOCs detected in groundwater beneath the Price Pfister property can be attributed to chemical releases that occurred at the Holchem/Brenntag facility (Figures ES-8 and ES-9).
- **VOC Degradation Products in Groundwater Migrating Onto Site:** Several VOCs, such as cis-1,2-dichloroethene, 1,1-dichloroethane, and 1,2-dichloroethane, found in groundwater at the Holchem/Brenntag facility and Price Pfister property are degradation products formed by microorganisms under anaerobic (i.e., lack of oxygen) conditions. These products appear to have originated at the Holchem/Brenntag facility because the products could not have been formed under the aerobic (i.e., presence of oxygen) conditions that exist at the Price Pfister property (Figure ES-10).
- **Conceptual Model of VOC Impacts to Groundwater:** A conceptual model describing VOC impacts to groundwater is illustrated on Figures ES-11 and ES-12. These figures illustrate VOC migration pathways.



## Findings Related to Non-VOCs

- **Releases at Central Building P Area:** Metals and petroleum hydrocarbons characteristic of oil have been detected in soil at the plating line and wastewater treatment system in the Central Building P Area. Except for hexavalent chromium, metals and petroleum hydrocarbons detected in soil at this location have not been found in underlying groundwater. Unlike other metals, hexavalent chromium is soluble and has been measured in groundwater at concentrations up to 35 micrograms per liter ("µg/L") in monitoring wells at the Price Pfister property. However, no significant source of hexavalent chromium in soil has been identified (Figure ES-13).
- **Releases at Building A Area:** Oils were released at the Building A Area. The oils traveled through soil under their own weight and pooled as free hydrocarbon product ("FHP") on top of groundwater. The FHP is not moving as a separate phase or as dissolved constituents in groundwater because the FHP consists of heavier molecular weight petroleum hydrocarbons that have a high viscosity and low solubility in water. Collection of FHP on groundwater was initiated in 1995 and continues to date. See Figure ES-13.
- **Releases at Building L Area:** Metals, petroleum hydrocarbons associated with oils, and semi-volatile organic compounds were detected in casting sands located beneath pavement near Building L. These chemicals bind tightly to soil and have not been found in groundwater at this area. Non-VOCs and casting sands in soil at the Building L Area are confined to the upper approximately 2 feet of the area. See Figure ES-13.

## Development of Leaching Values and Risk-Based Screening Levels

- **Numerical Guidelines for Protection of Groundwater and Site Users:** Leaching values and risk-based screening levels to aid in remedial action planning have been calculated for chemicals in soil and soil gas based on protection of groundwater and Site users (Table ES-1). Current and future Site users may include industrial/commercial workers, earthwork construction workers, and maintenance personnel.



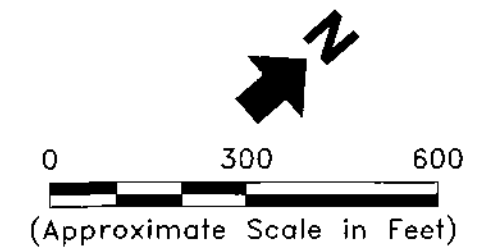
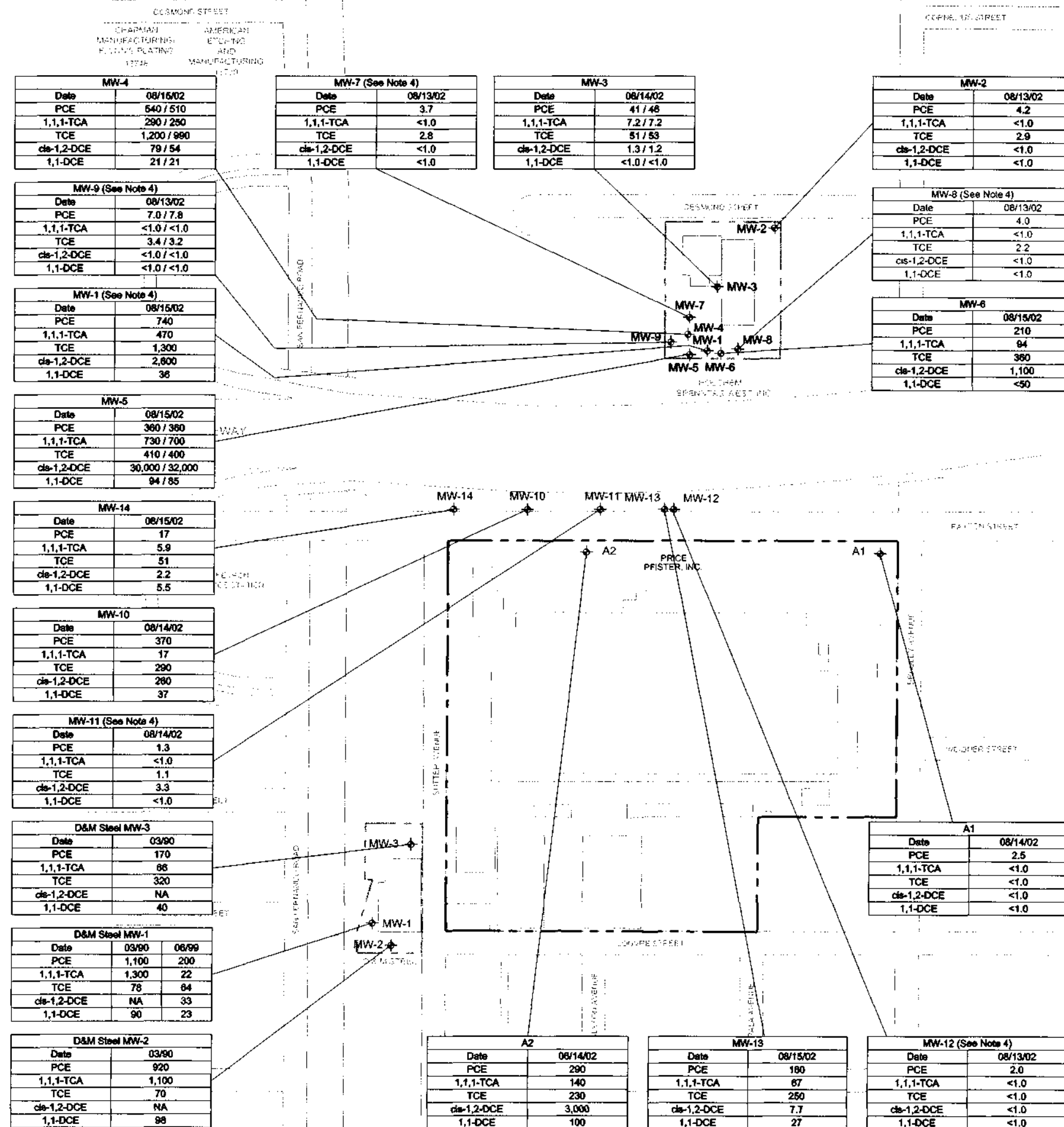
## **Conclusion**

Available data and information compiled from the RI and previous investigations are adequate for purposes of assembling and evaluating remedial actions to mitigate chemicals of concern beneath the Price Pfister property. It is recommended that a remedial action plan be prepared. The impacts of chemical releases at Holchem/Brenntag, D&M Steel, and other nearby facilities on groundwater quality have not been adequately assessed.









#### Legend:

- ◆ Groundwater Monitoring Well
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur

#### Abbreviations:

- PCE = Tetrachloroethene
- 1,1,1-TCA = 1,1,1-trichloroethane
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-dichloroethene
- 1,1-DCE = 1,1-dichloroethene
- VOC = Volatile organic compound
- <1.0 = Analyte not detected above analytical method reporting limit shown.
- NA = Sample not tested for this analyte or result not available.

#### Notes:

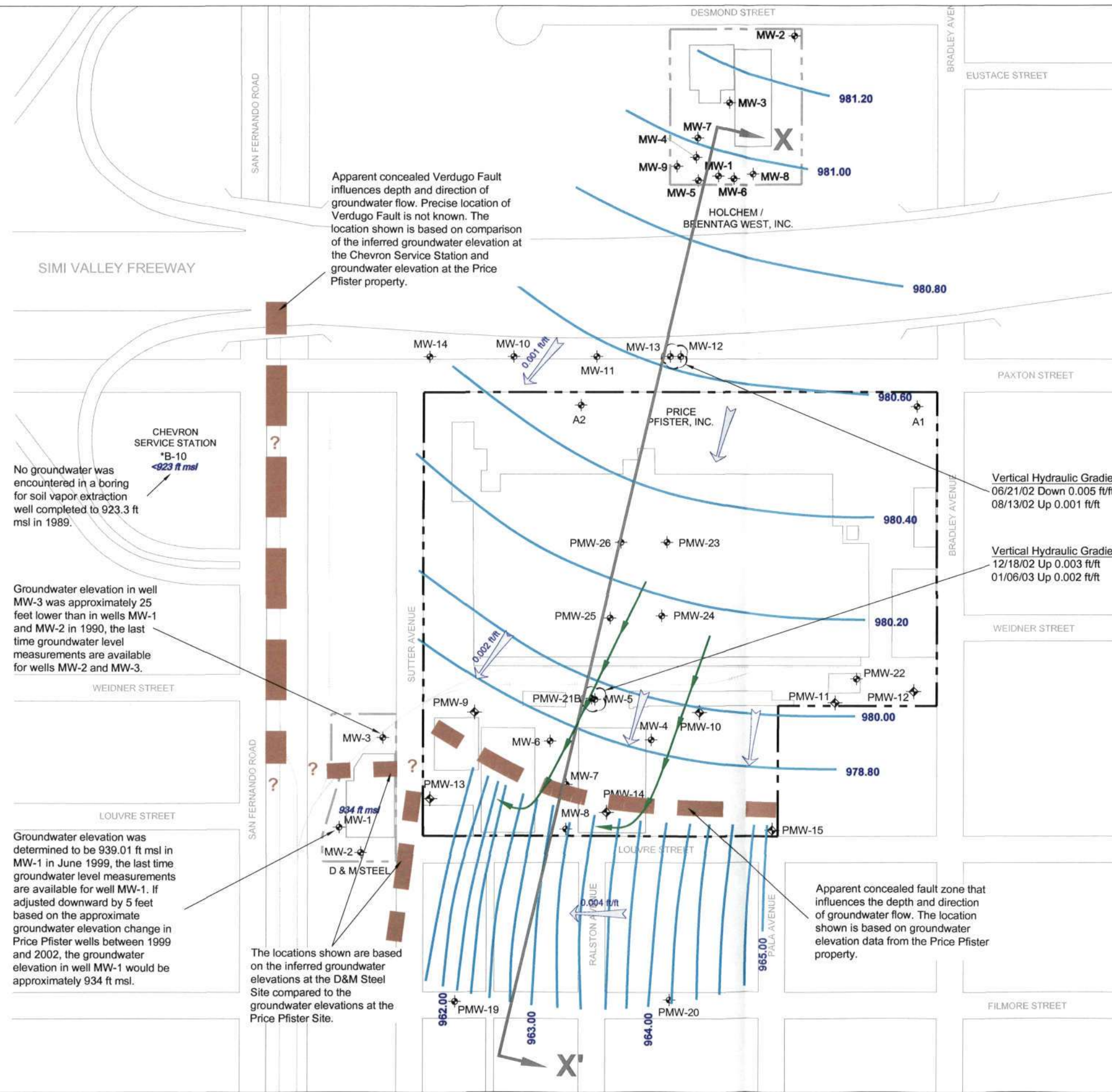
1. All locations are approximate.
2. Analytical results are in micrograms per liter.
3. Monitoring wells A1 and A2 are sampled as part of the Holchem facility investigation and are not Price Pfister monitoring wells.
4. Holchem/Brenntag West Inc. monitoring wells MW-1, MW-7, MW-8, MW-9, MW-11 and MW-12 are screened below the water table.

**Erler & Kalinowski, Inc.**

Selected VOCs in Groundwater  
at Nearby Facilities  
with Chemical Releases

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure ES-2





**Legend:**

- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- 980.8 Inferred Groundwater Elevation Contour; ft msl
- 0.004 ft/ft Magnitude and Direction of Horizontal Hydraulic Gradient
- Projected Groundwater Flow Path
- X X' Cross-Section Location

**Abbreviations:**

ft msl = feet above mean sea level

**Notes:**

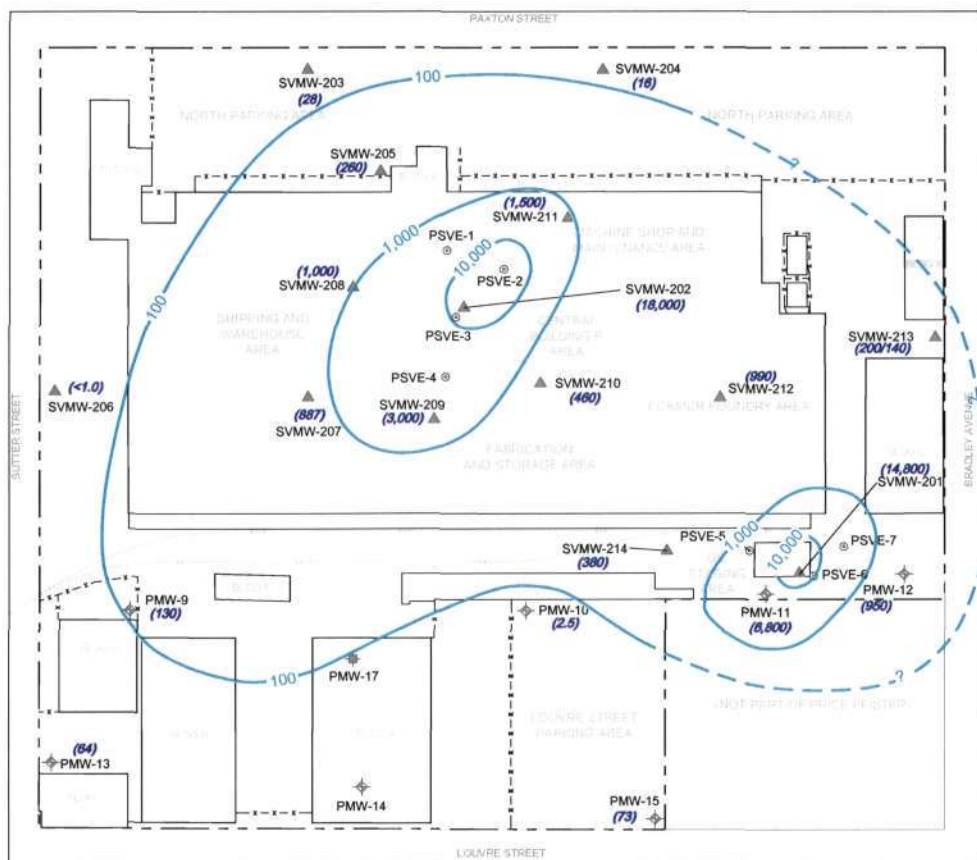
1. All locations are approximate.
2. Price Pfister Well PMW-21B and Holchem/Brenntag West, Inc. wells MW-1, MW-7, MW-8, MW-9, MW-11 and MW-12 are screened below the water table.
3. The identified groundwater elevation contours for the Price Pfister property are based on measurements collected 6 January 2003. The groundwater elevation contours for the Holchem facility are based on measurements collected 13 August 2002, which have been adjusted downward by subtracting 1.9 feet. The adjustment of 1.9 feet is based on the approximate average decrease in groundwater elevations in Price Pfister monitoring wells from 12 August 2002 to 6 January 2003.
4. Water level measurements associated with identified groundwater level contours are presented on figures included in Appendix B.

**Erler & Kalinowski, Inc.**

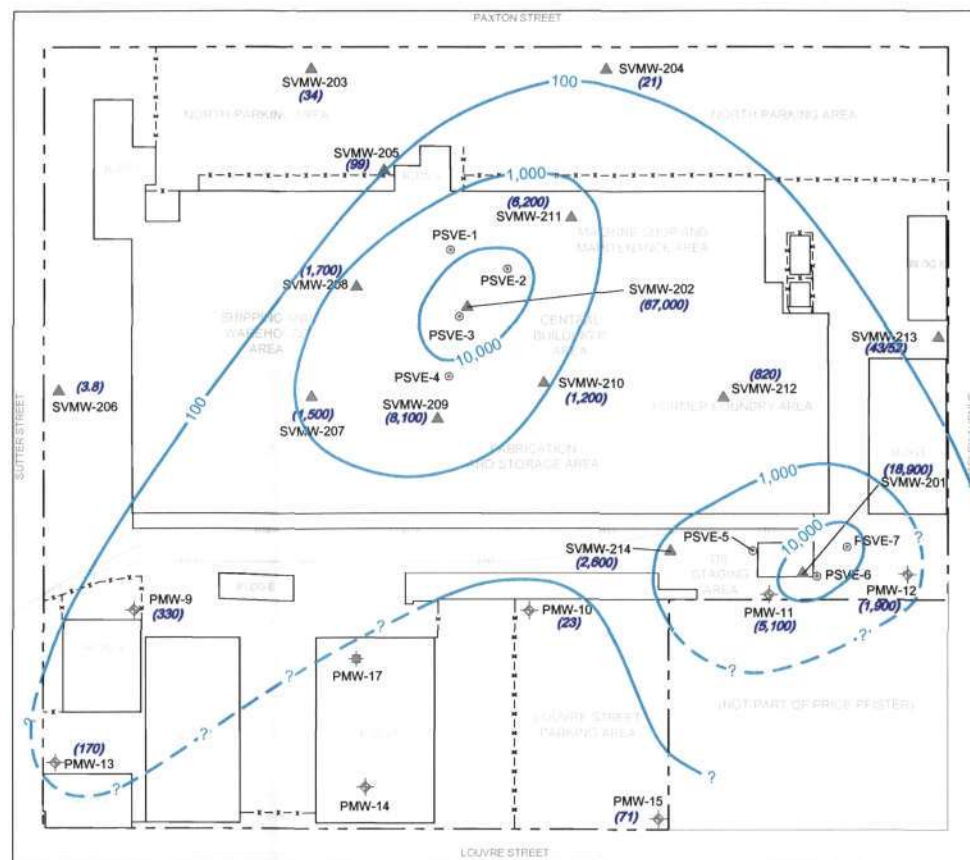
Plan View Illustrating Generalized Groundwater Flow Conditions

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure ES-3

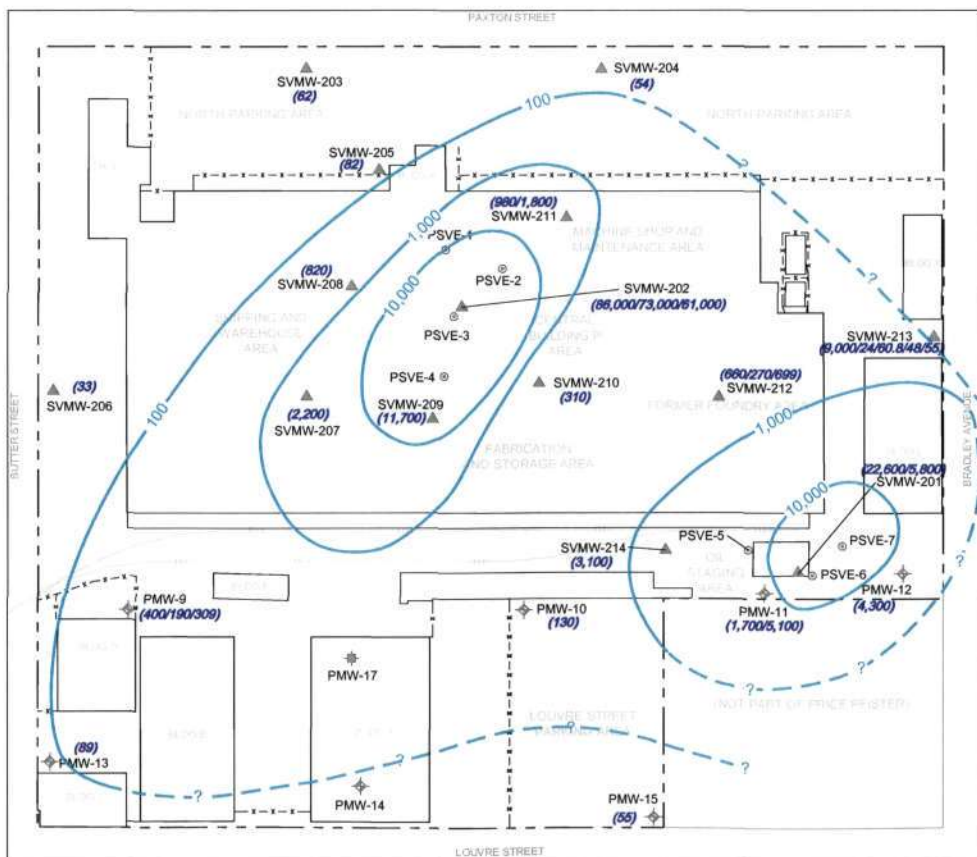




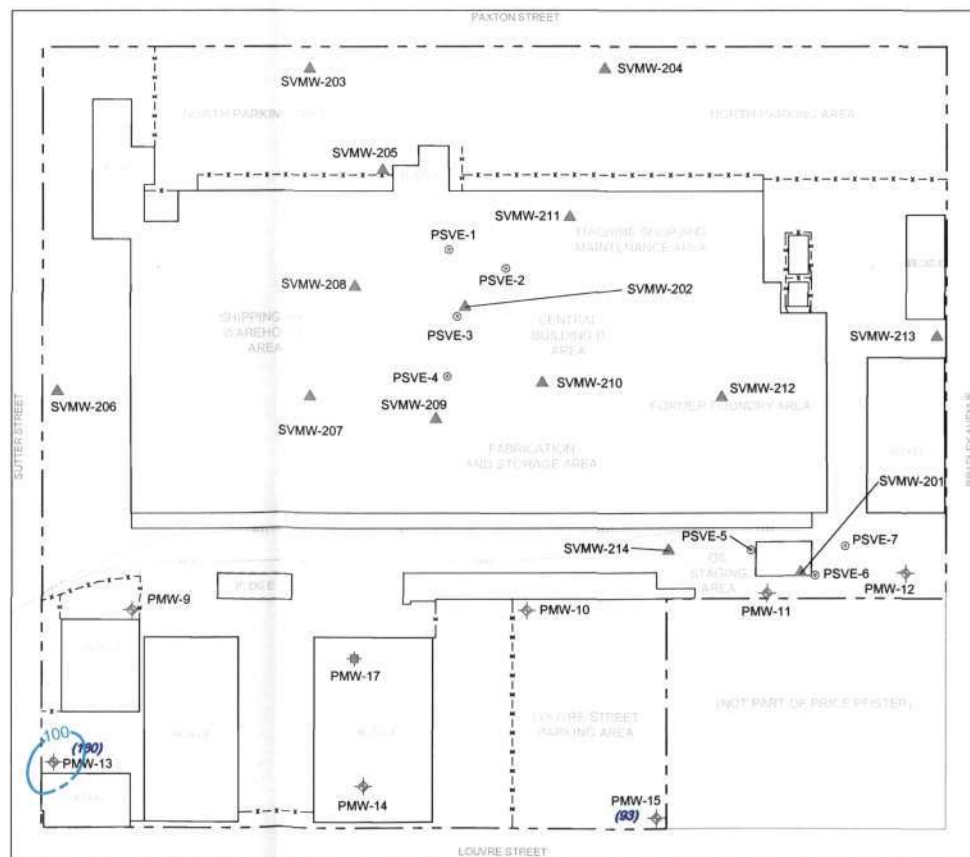
PCE Concentrations at First Screen (~10 to 24 ft bgs)



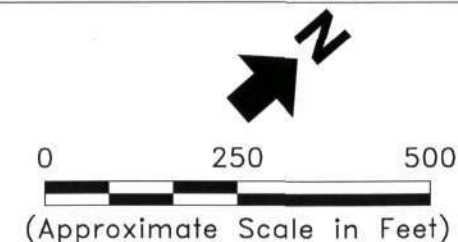
PCE Concentrations at Second Screen (~25 to 39 ft bgs)



PCE Concentrations at Third Screen (~40 to 54 ft bgs)



PCE Concentrations at Fourth Screen (~60 to 65 ft bgs)



#### Legend:

- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- ⊠ Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
- Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- Fence
- 100 --- Contour of Tetrachloroethene ("PCE") Concentration in Soil Gas (µg/L); Dashed Where Inferred

#### Abbreviations:

- ft bgs = feet below ground surface
- µg/L = micrograms per liter

#### Notes:

- All locations are approximate.
- Analytical results are in micrograms per liter.
- Analytical results shown are for samples collected in July 2002 before soil vapor extraction systems began operation in September 2002. Wells PMW-14 and PMW-17 were not installed before the July 2002 sampling.
- Screen Intervals of vapor monitoring wells are as follows:

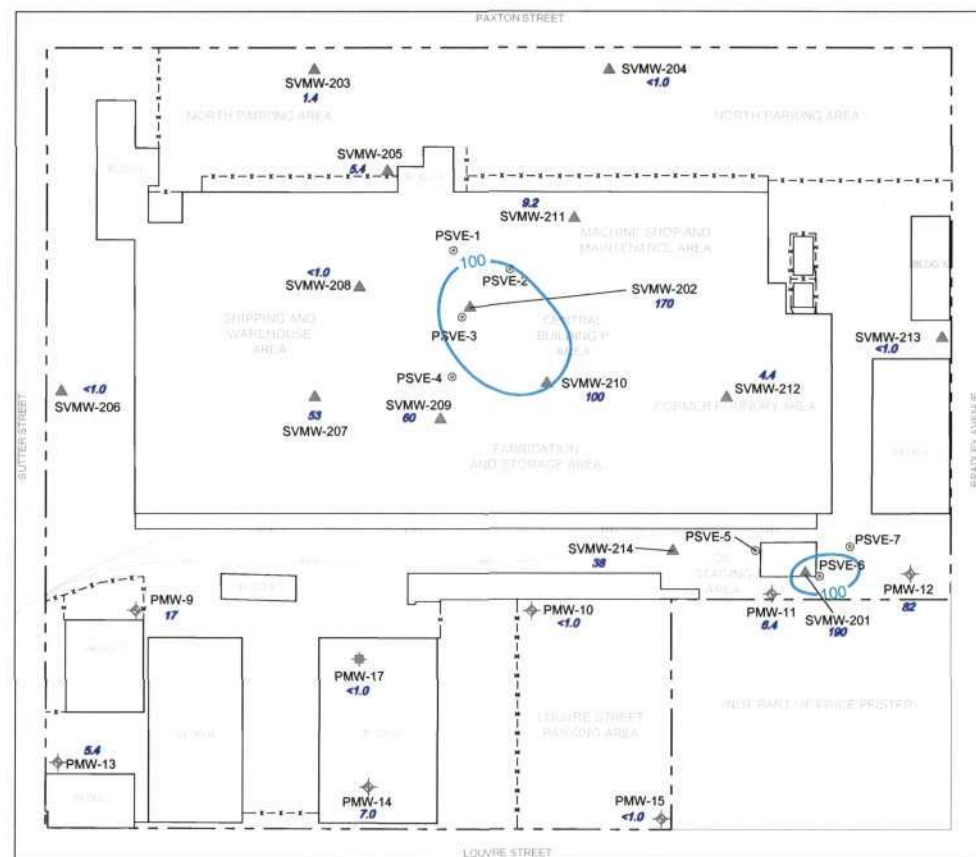
	PMW-13 and PMW-15	All Other Wells
First Screen Interval	Yes	Yes
Second Screen Interval	Yes	Yes
Third Screen Interval	Yes	Yes
Fourth Screen Interval	Yes	No

**Erler & Kalinowski, Inc.**

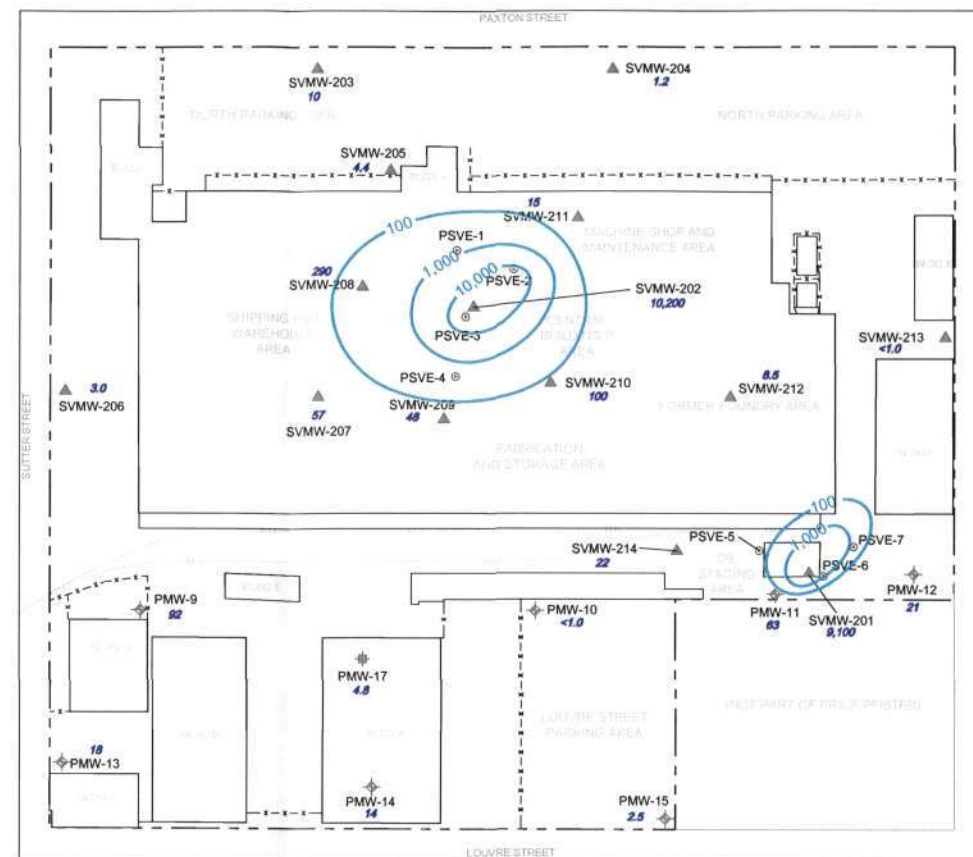
PCE Soil Gas Concentration  
Contours with Depth  
July 2002

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure ES-4

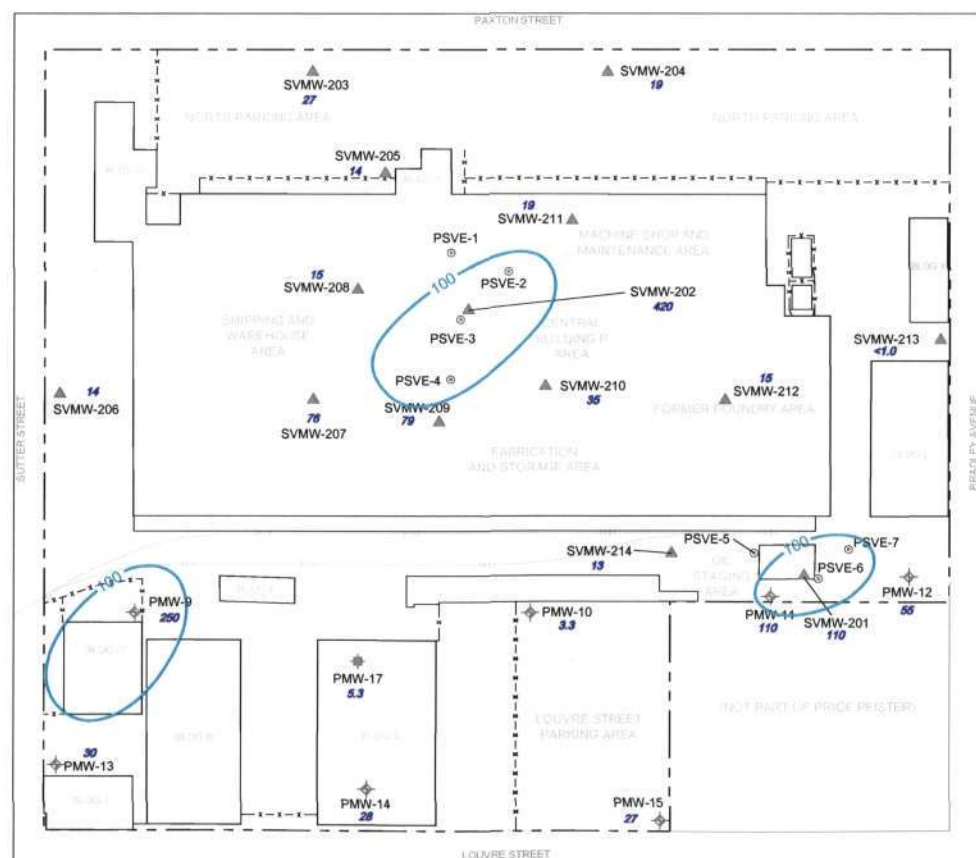




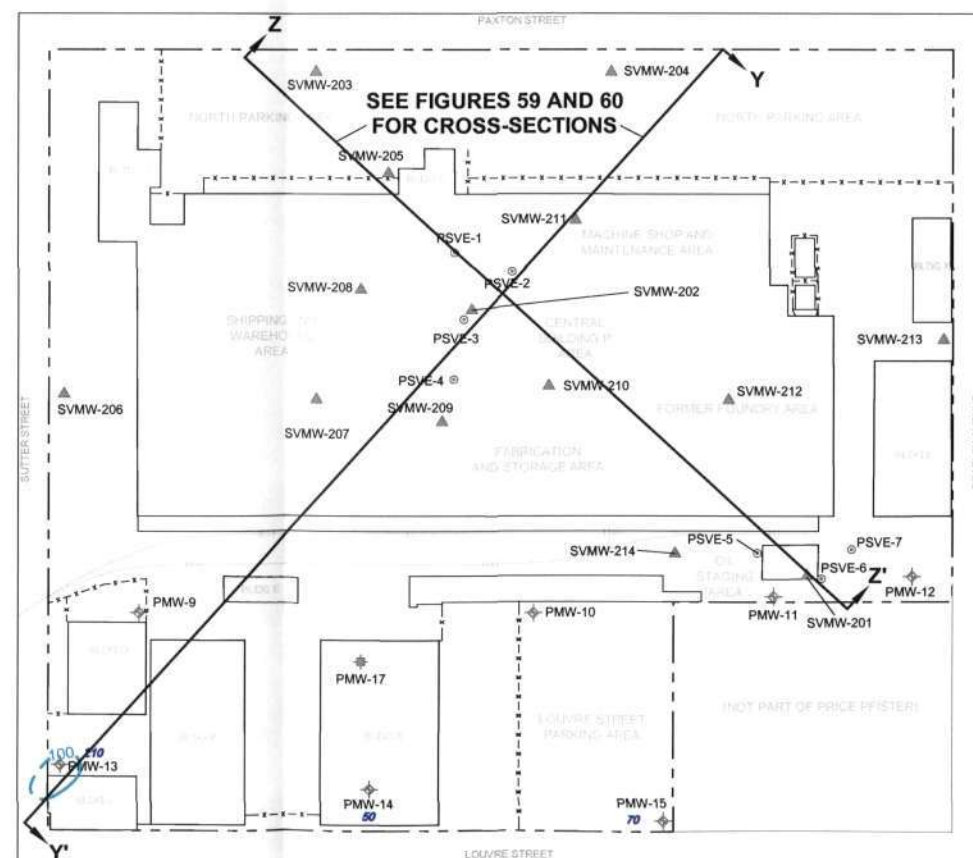
### PCE Concentrations at First Screen (~10 to 24 ft bgs)



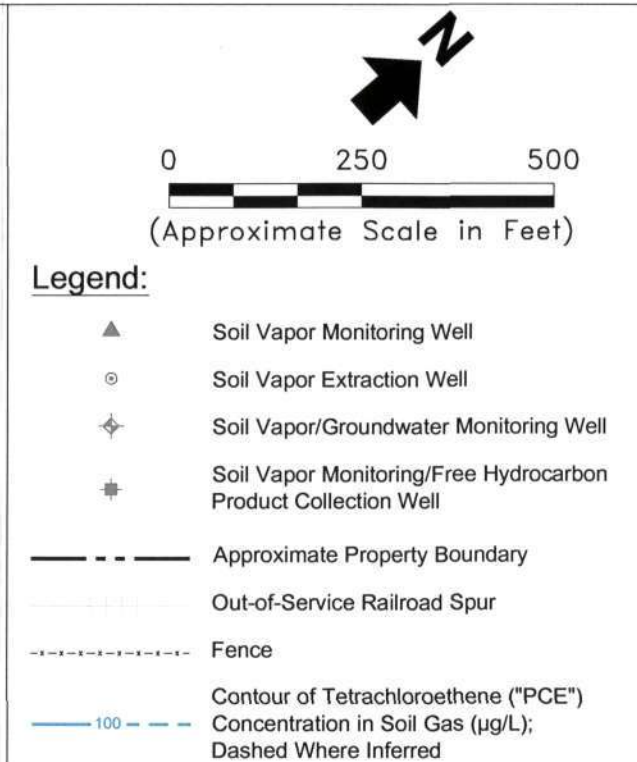
PCE Concentrations at Second Screen (~25 to 39 ft bgs)



### PCE Concentrations at Third Screen (~40 to 54 ft bgs)



### PCE Concentrations at Fourth Screen (~60 to 65 ft bgs)



Abbreviations:

ft bgs = feet below ground surface

$\mu\text{g/L}$  = micrograms per liter

Notes:

1. All locations are approximate.
2. Analytical results shown are for samples collected 2 January 2003 to 7 January 2003 during temporary shutdown of soil vapor extraction systems between 20 December 2002 and 14 January 2003.

3. Screen Intervals of vapor monitoring wells are as follows:

	<u>Wells PMW-13, PMW-14 and PMW-15</u>	<u>All Other Wells</u>
First Screen Interval	Yes	Yes
Second Screen Interval	Yes	Yes
Third Screen Interval	Yes	Yes
Fourth Screen Interval	Yes	No

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PCE Soil Gas Concentration  
Contours with Depth  
January 2003

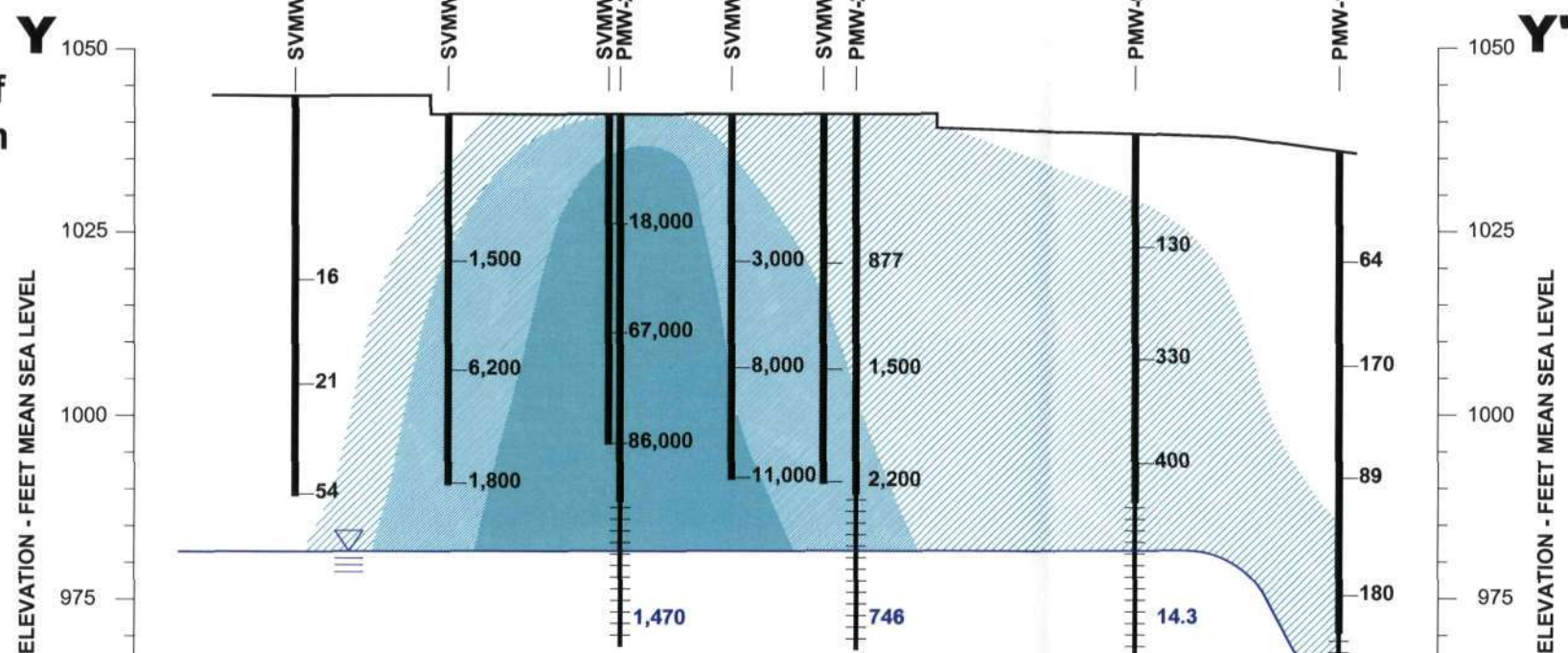
Price Pfister, Inc.  
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EKI A20034.03

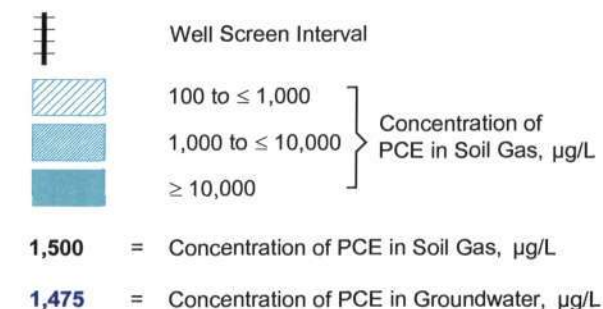
Figure ES-5



# Prior to Start of SVE Operation



## Legend:



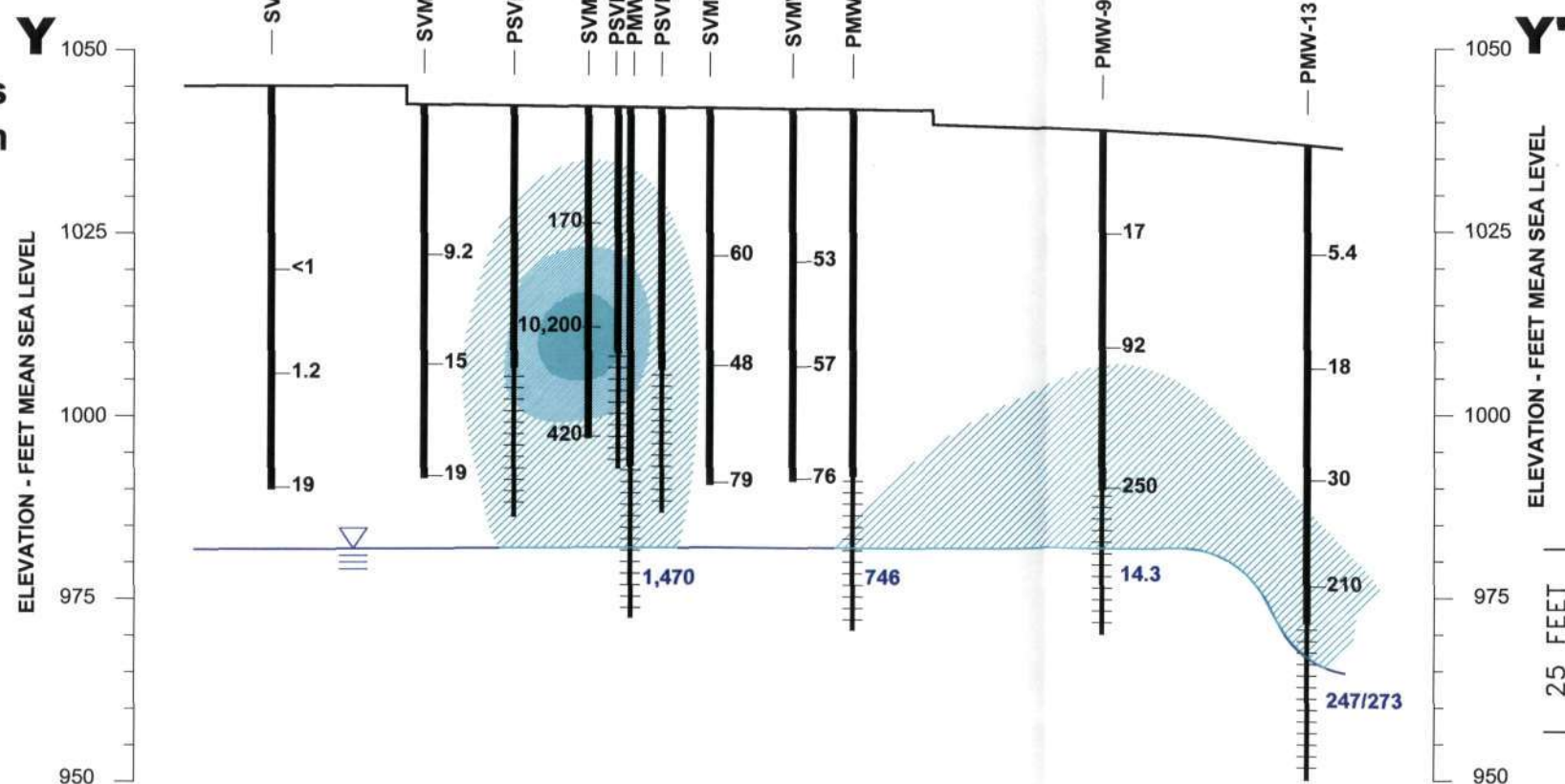
## Abbreviations:

PCE = Tetrachloroethene  
 µg/L = micrograms per liter  
 SVE = Soil vapor extraction

## Note:

1. Groundwater sampling results are for samples collected on 6 to 8 January 2003.
2. Location of the cross-section is shown on Figure 11.
3. Soil vapor extraction systems began operation in September 2002.

# After 3 Months of SVE Operation



**Erler & Kalinowski, Inc.**

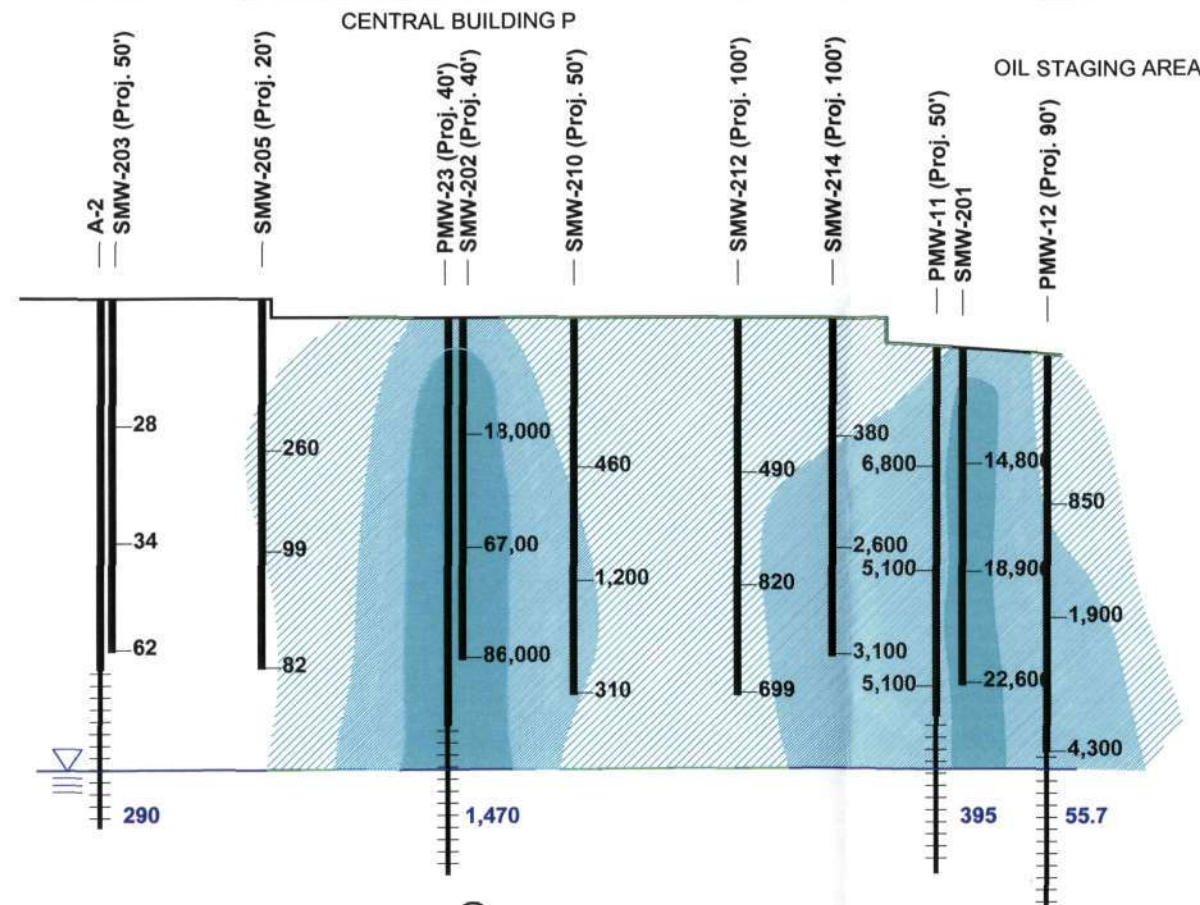
Distribution of PCE in Soil Gas  
 Before Start and After 3 Months  
 of SVE at Cross-Section Y-Y'

Price Pfister, Inc.  
 Pacoima, CA  
 February 2003  
 EKI A20034.03  
 Figure ES-6



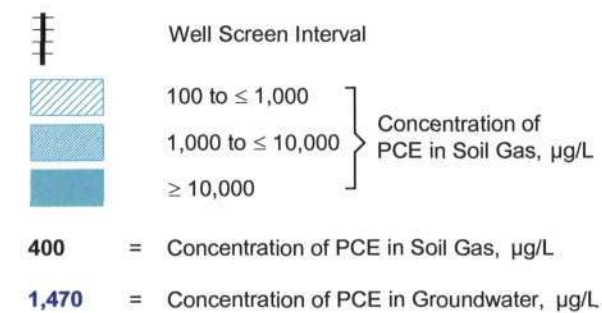
Prior to Start of  
SVE Operation

**Z**  
1050  
1025  
1000  
975  
950  
ELEVATION - FEET MEAN SEA LEVEL



**Z'**  
1050  
1025  
1000  
975  
950  
ELEVATION - FEET MEAN SEA LEVEL

#### Legend:



#### Abbreviations:

PCE = Tetrachloroethene  
µg/L = micrograms per liter  
SVE = Soil vapor extraction

#### Note:

- Groundwater sampling results are for samples collected on 6 to 8 January 2003, except at well A-2, which is from 14 August 2002.
- Location of the cross-section is shown on Figure 11.
- Soil vapor extraction systems began operation in September 2002.

**Erler &  
Kalinowski, Inc.**

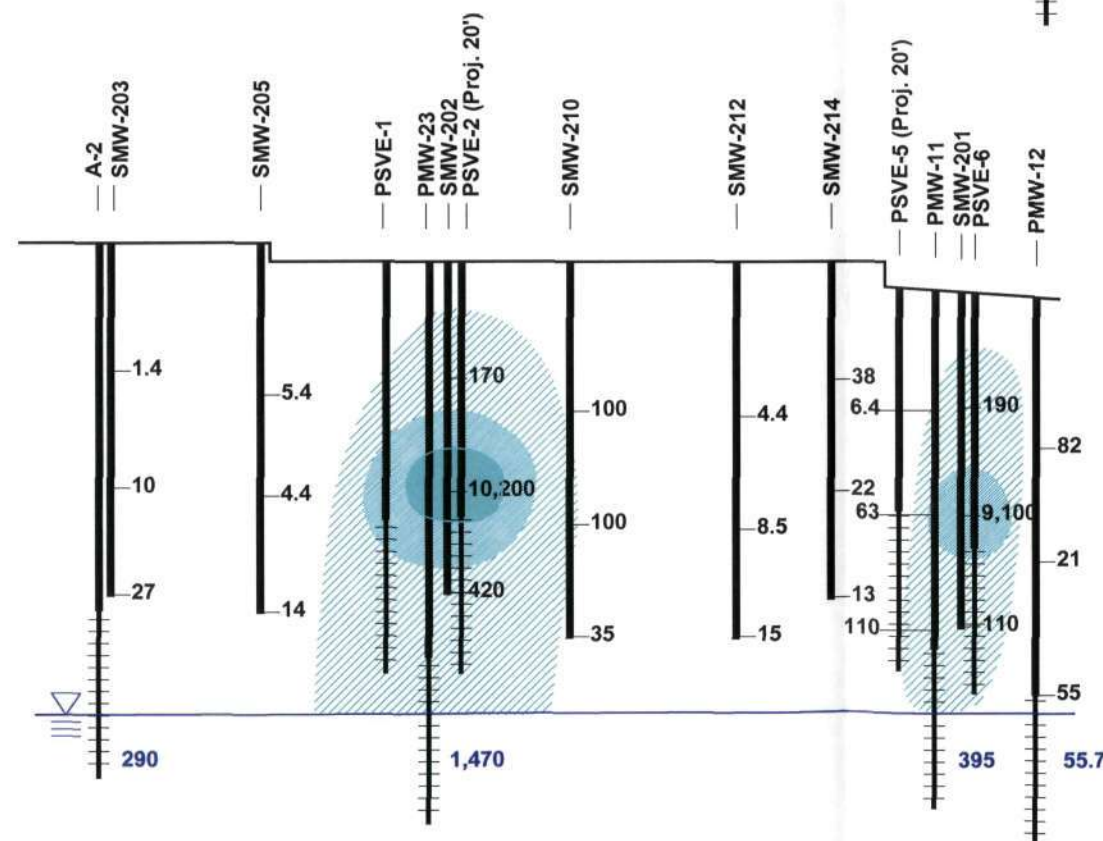
Distribution of PCE in Soil Gas  
Before Start and After 3 Months  
of SVE at Cross-Section Z-Z'

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure ES-7

After 3 Months  
of SVE Operation

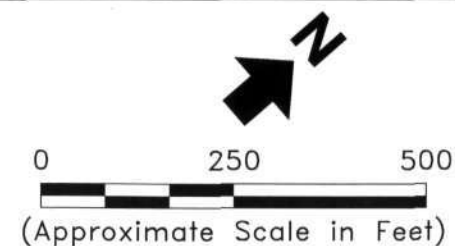
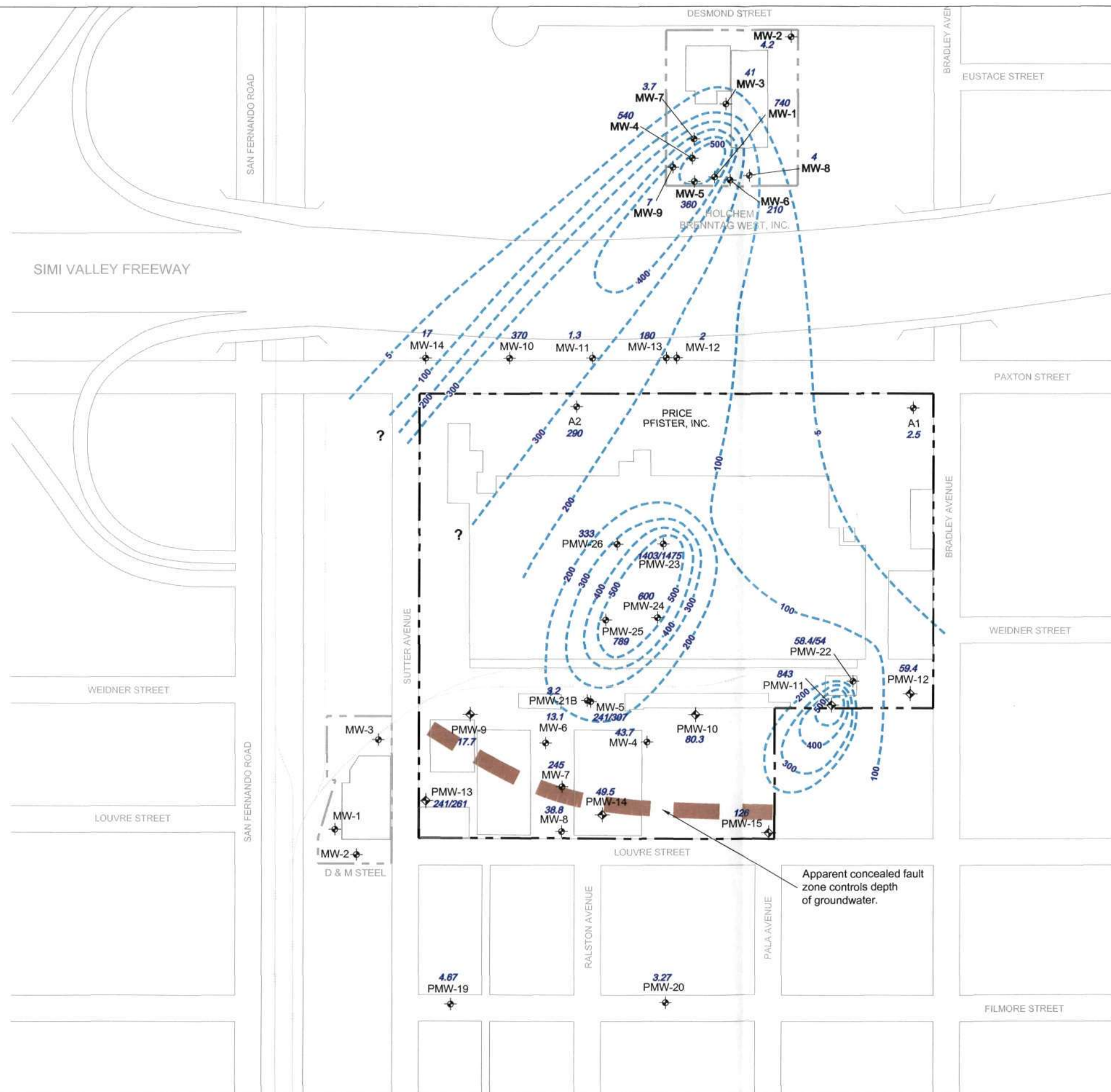
**Z**  
1050  
1025  
1000  
975  
950  
ELEVATION - FEET MEAN SEA LEVEL



**Z'**  
1050  
1025  
1000  
975  
950  
ELEVATION - FEET MEAN SEA LEVEL

25 FEET  
230 FEET





#### Legend:

- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- PCE Concentration (µg/L)
- Inferred Isoconcentration Contour (µg/L)

#### Abbreviations:

- PCE = Tetrachloroethene
- µg/L = micrograms per liter
- MCL = Maximum Contaminant Level for drinking water

#### Notes:

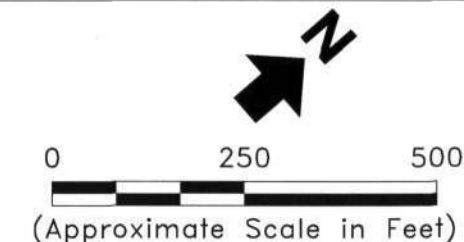
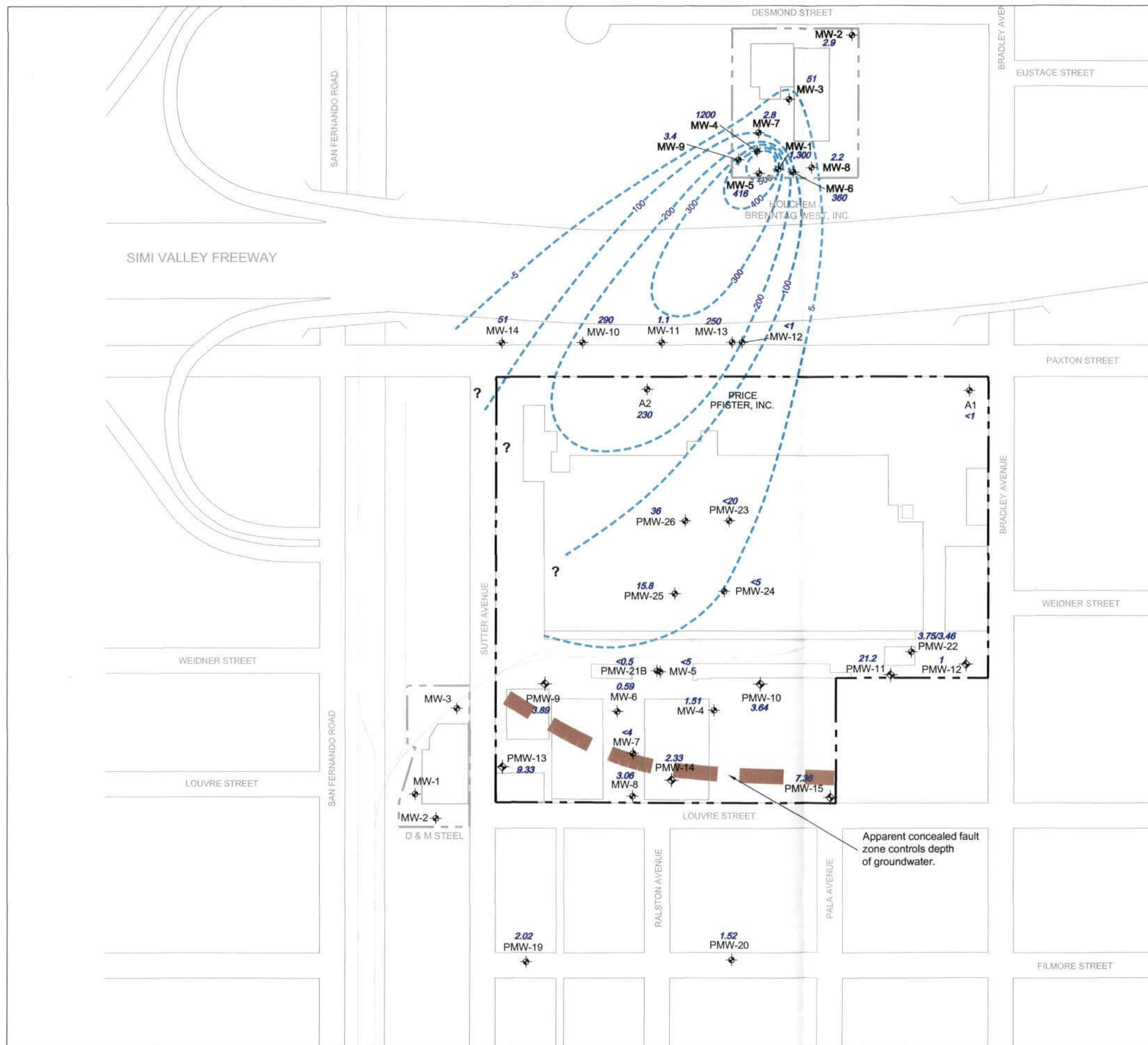
1. All locations are approximate.
2. The MCL for PCE is 5 µg/L.
3. The PCE concentration data shown are from three different sampling events in 2002. Holchem data are from 13-15 August 2002 and Price Pfister data are from 7-8 November 2002 or 5-6 December 2002.
4. The well screens for Price Pfister well PMW-21B and Holchem/Brenntag West wells MW-1, MW-7, MW-8, MW-9, MW-11, and MW-12 are deep wells only screened below the groundwater table. Data from these wells were not used to determine concentration contours.

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Inferred Distribution of PCE  
in Groundwater

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure ES-8





#### Legend:

- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- Out-of-Service Railroad Spur
- 36 TCE Concentration (µg/L)
- - - 5 Inferred Isoconcentration Contour (µg/L)

#### Abbreviations:

- TCE = Trichloroethene
- µg/L = micrograms per liter
- MCL = Maximum Contaminant Level for drinking water

#### Notes:

1. All locations are approximate.
2. The MCL for TCE is 5 µg/L.
3. The TCE concentration data shown are from three different sampling events in 2002. Holchem data are from 13-15 August 2002 and Price Pfister data are from 7-8 November 2002 or 5-6 December 2002.
4. The well screens for Price Pfister well PMW-21B and Holchem/Brenntag West wells MW-1, MW-7, MW-8, MW-9, MW-11, and MW-12 are deep wells only screened below the groundwater table. Data from these wells were not used to determine concentration contours.

**Erler &  
Kalinowski, Inc.**

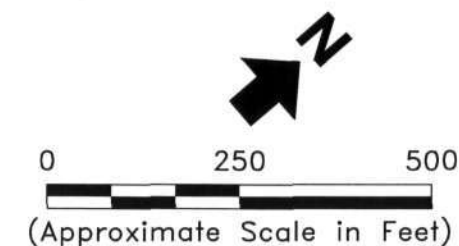
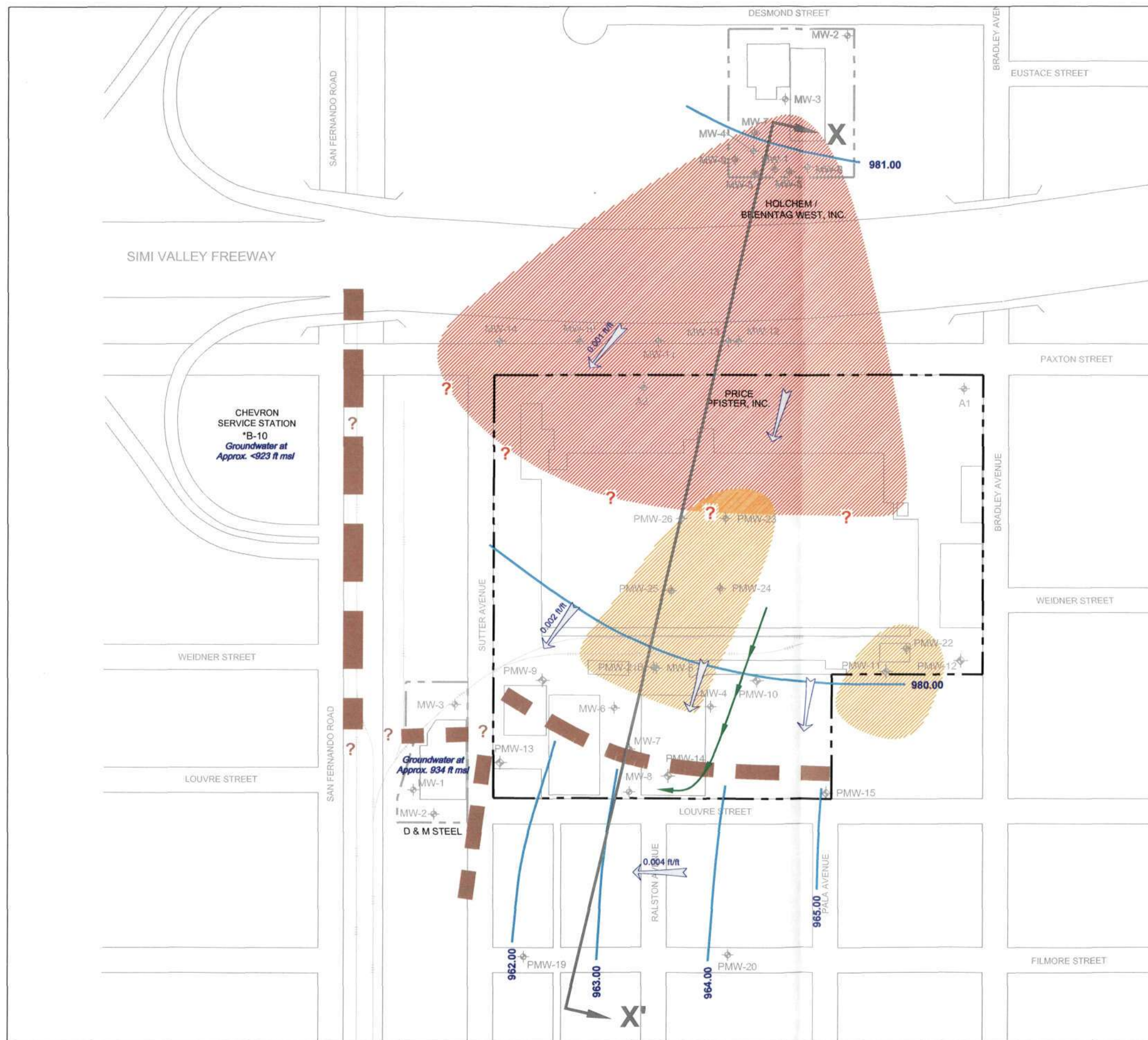
Inferred Distribution of  
TCE in Groundwater

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure ES-9









#### Legend:

- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- Inferred Groundwater Elevation Contour; ft msl
- Apparent Concealed Fault Zone
- Magnitude and Direction of Horizontal Hydraulic Gradient
- Projected Groundwater Flow Path
- Cross-Section Location
- Chlorinated and Non-Chlorinated Solvent Groundwater Plume (Note 2)
- PCE Groundwater Plume (Note 2)

#### Abbreviations:

- ft msl = feet above mean sea level
- PCE = Tetrachloroethene

#### Notes:

1. All locations are approximate.
2. The general locations and orientations of the areas of groundwater with higher concentrations of PCE and chlorinated solvents are shown. The full extent is not shown.

**Erler & Kalinowski, Inc.**

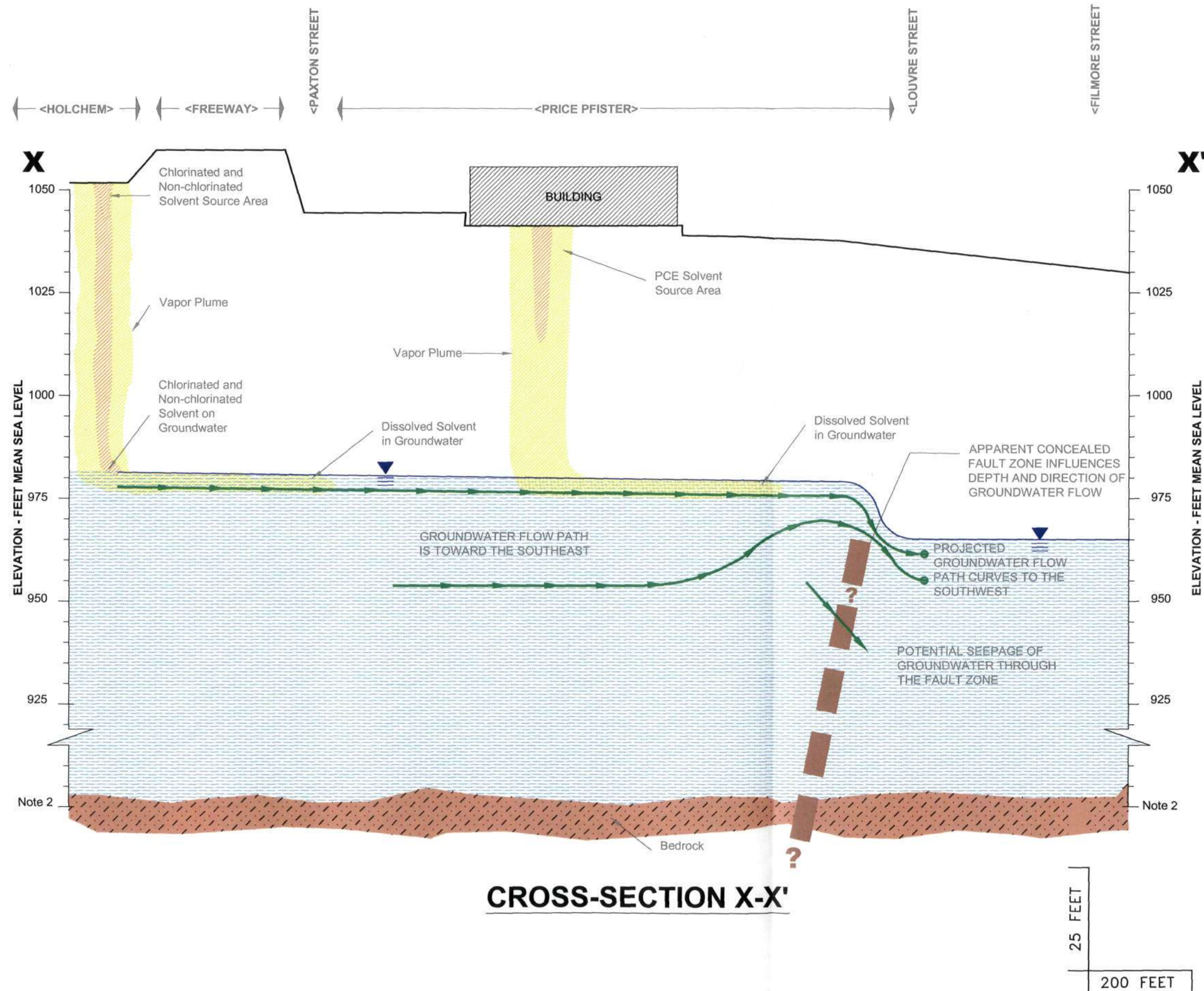
Illustration of Conceptual Model  
for VOCs in Groundwater  
Plan View

Price Pfister, Inc.  
Pacoima, CA

February 2003  
EKI A20034.03

Figure ES-11





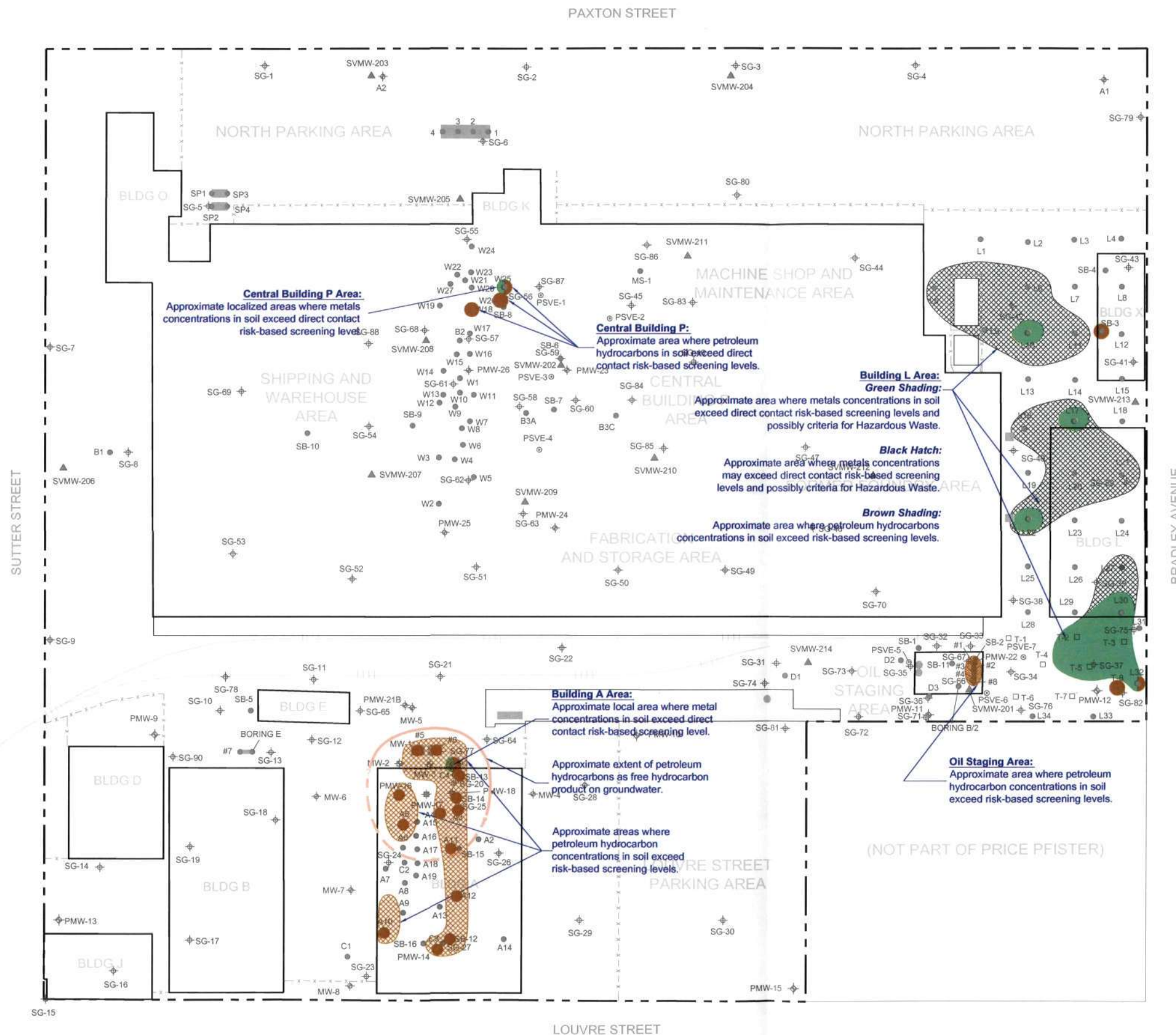
**Erler & Kalinowski, Inc.**

Cross-Section View Illustrating  
 Conceptual Site Model  
 for VOCs in Soil and Groundwater

Price Pfister, Inc.  
 Pacoima, CA  
 February 2003  
 EKI A20034.03

Figure ES-12





# Legend:

- Soil Sample
- Trench Soil Sample
- ⊕ Soil Gas Grab Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- ⊕ Free Hydrocarbon Product Collection Well
- ⊕ Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
- Former or Existing Above Ground or Underground Storage Tank
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - Fence

## Note:

1. All locations are approximate.

**Erler & Kalinowski, Inc.**

Illustration of Areas with Non-VOCs in Soil Exceeding Direct Contact Risk-Based Screening Levels

Price Pfister, Inc.  
Pacoima, CA

February 2003  
EKI A20034.03

Figure ES-13



**Table ES-1**

***Summary of Site-Specific Leaching Values and Risk-Based Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Leaching Values for Protection of Groundwater (2) (3) (4)		Risk-Based Screening Levels for Protection of Human Health (4)			
		Soil (mg/kg)	Soil Gas (µg/L)	Direct Contact (5)		Vapor Intrusion (6)	
				Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)
VOCs							
Primary VOCs							
Tetrachloroethene	0 - 3	3.7	5,200	0.18	250	0.28	380
	3 - 30	0.045	63	0.18	250	0.031	43
	30 - 60	0.011	15	0.18	250	0.028	38
1,1,1-trichloroethane	0 - 3	69	89,000	290	370,000	350 (7)	450,000
	3 - 30	0.85	1,100	290	370,000	65	83,000
	30 - 60	0.21	270	290	370,000	58	75,000
Trichloroethene	0 - 3	2.8	4,700	0.72	1,200	0.82	1,300
	3 - 30	0.036	60	0.72	1,200	0.091	150
	30 - 60	0.0088	14	0.72	1,200	0.082	130
cis-1,2-dichloroethene	0 - 3	2.4	4,100	16	27,000	20	35,000
	3 - 30	0.043	73	16	27,000	2.3	3,900
	30 - 60	0.0094	16	16	27,000	2.0	3,500
1,1-dichloroethene	0 - 3	1.3	5,500	16	65,000	41	170,000
	3 - 30	0.016	68	16	65,000	4.5	19,000
	30 - 60	0.0043	18	16	65,000	4.1	17,000
Secondary VOCs							
1,1-dichloroethane	0 - 3	1.7	3,800	3.8	8,400	1.0	2,200
	3 - 30	0.028	61	3.8	8,400	0.11	250
	30 - 60	0.0062	14	3.8	8,400	0.10	220
1,2-dichloroethane	0 - 3	0.17	370	0.43	950	0.078	170
	3 - 30	0.0080	18	0.43	950	0.0086	19
	30 - 60	0.0014	3.0	0.43	950	0.0078	17
trans-1,2-dichloroethene	0 - 3	3.6	9,500	22	56,000	41	110,000
	3 - 30	0.048	120	22	56,000	4.5	12,000
	30 - 60	0.012	33	22	56,000	4.1	11,000
Vinyl Chloride	0 - 3	0.089	430	0.040	200	0.021	100
	3 - 30	0.0011	5.4	0.040	200	0.0023	10
	30 - 60	0.00030	1.5	0.040	200	0.0021	10
Bromomethane	0 - 3	2.5	7,100	1.4	4,200	2.9	8,400
	3 - 30	0.037	110	1.4	4,200	0.32	940
	30 - 60	0.0085	25	1.4	4,200	0.29	840
Chloroform	0 - 3	32	48,000	1.5	2,300	0.31	470
	3 - 30	0.57	860	1.5	2,300	0.034	52
	30 - 60	0.13	200	1.5	2,300	0.031	47
Trichlorofluoromethane	0 - 3	77	98,000	240 (7)	310,000	240 (7)	310,000
	3 - 30	0.96	1,200	240 (7)	310,000	45	58,000
	30 - 60	0.12	150	240 (7)	310,000	41	52,000



**Table ES-1**

***Summary of Site-Specific Leaching Values and Risk-Based Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Leaching Values for Protection of Groundwater (2) (3) (4)		Risk-Based Screening Levels for Protection of Human Health (4)			
				Direct Contact (5)		Vapor Intrusion (6)	
		Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)
VOCs							
Secondary VOCs							
Benzene	0 - 3	0.43	770	0.20	350	0.057	101
	3 - 30	0.0064	11	0.20	350	0.0064	11
	30 - 60	0.0015	2.7	0.20	350	0.0057	10
Toluene	0 - 3	120	130,000	160	180,000	170	190,000
	3 - 30	1.6	1,700	160	180,000	19	21,000
	30 - 60	0.38	420	160	180,000	17	19,000
Ethylbenzene	0 - 3	52 (7)	40,000	52 (7)	40,000	52 (7)	40,000
	3 - 30	11	8,500	52 (7)	40,000	52 (7)	40,000
	30 - 60	2.6	2,000	52 (7)	40,000	52 (7)	40,000
Total Xylenes	0 - 3	58 (7)	1,200,000	58 (7)	30,000	58 (7)	210,000
	3 - 30	30	16,000	58 (7)	30,000	45	24,000
	30 - 60	7.1	3,700	58 (7)	30,000	41	21,000
Non-VOCs							
Petroleum Hydrocarbons							
Total Extractable Petroleum Hydrocarbons	0 - 3	--	--	1,000 (8)	--	--	--
	3 - 30	--	--	1,000 (8)	--	--	--
	30 - 60	--	--	1,000 (8)	--	--	--
Metals and Cyanide							
Chromium	0 - 3	--	--	1,900	--	--	--
	3 - 30	--	--	1,900	--	--	--
	30 - 60	--	--	1,900	--	--	--
Hexavalent Chromium	0 - 3	7.6	--	270	--	--	--
	3 - 30	1.1	--	270	--	--	--
	30 - 60	0.99	--	270	--	--	--
Copper	0 - 3	--	--	7,700	--	--	--
	3 - 30	--	--	7,700	--	--	--
	30 - 60	--	--	7,700	--	--	--
Lead	0 - 3	--	--	740 (9)	--	--	--
	3 - 30	--	--	740 (9)	--	--	--
	30 - 60	--	--	740 (9)	--	--	--
Nickel	0 - 3	--	--	3,700	--	--	--
	3 - 30	--	--	3,700	--	--	--
	30 - 60	--	--	3,700	--	--	--
Zinc	0 - 3	--	--	63,000	--	--	--
	3 - 30	--	--	63,000	--	--	--
	30 - 60	--	--	63,000	--	--	--



**Table ES-1**

***Summary of Site-Specific Leaching Values and Risk-Based Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Leaching Values for Protection of Groundwater (2) (3) (4)		Risk-Based Screening Levels for Protection of Human Health (4)			
		Soil (mg/kg)	Soil Gas (µg/L)	Direct Contact (5)		Vapor Intrusion (6)	
				Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)
Non-VOCs							
Metals and Cyanide							
Cyanide	0 - 3	--	--	4,200	--	--	--
	3 - 30	--	--	4,200	--	--	--
	30 - 60	--	--	4,200	--	--	--
Semi-Volatile Organic Compounds							
Chrysene	0 - 10	1,000,000	11,000	14	0.15	15	0.16
	10 - 35	21,000	220	14	0.15	110	1.2
	35 - 60	330	3.5	14	0.15	940	10
Phenanthrene	0 - 10	1,000,000	8,600	37,000	320	74,000	640
	10 - 35	1,000,000	8,600	37,000	320	280,000	2,400
	35 - 60	30,000	260	37,000	320	1,000,000	8,600
Pyrene	0 - 10	1,000,000	4,700	4,300	20	14,000	66
	10 - 35	880,000	4,100	4,300	20	96,000	450
	35 - 60	1,900	8.9	4,300	20	840,000	3,900



## Table ES-1

### ***Summary of Site-Specific Leaching Values and Risk-Based Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

--	not calculated
ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
µg/L	micrograms per liter
RBSL	Risk-based screening level
VOC	Volatile organic compound

#### **Notes**

- (1) Human health toxicity values and physical exposure parameters used in calculating leaching values and RBSLs are summarized in Tables 24 through 27. RBSLs assume a non-carcinogenic target risk level that corresponds to a hazard index of 1 for an individual chemical and a carcinogenic target risk level of one-in-one million (i.e.,  $10^{-6}$ ) incremental risk of an individual developing cancer from exposure to an individual chemical.
- (2) Leaching values were calculated through use of U.S. EPA VLEACH vadose zone leaching computer model to maintain chemical concentrations in groundwater beneath an area of 4,000 square feet at or below Maximum Contaminant Levels, unless otherwise noted. This area is assumed to be typical of an area of possible chemical release at the Site. The soil concentration indicated is the lower of either the remediation goal calculated in Table 28 or the estimated soil saturation concentration. The soil gas concentration indicated is that calculated to be in equilibrium with the given soil concentration.
- (3) Leaching values do not take into account possible recontamination of soil from VOCs volatilizing from groundwater. VOCs may be migrating in groundwater onto the Price Pfister property as a result of chemical releases at Holchem or potentially other nearby facilities. Attainment of leaching values may not be feasible given regional groundwater contamination.
- (4) Certain leaching values or RBSLs might be below the range of typical analytical method reporting limits for VOCs and hexavalent chromium. In such cases, the leaching values and RBSLs may be the desirable cleanup levels, but attainment can only be determined at the standard analytical method reporting limits. Actual analytical method reporting limits determining attainment with remedial action objectives will be established at the time of confirmation sampling and will consider such factors as whether matrix interferences exist in the samples that necessitate raising the standard analytical method reporting limits.
- (5) These RBSLs have been calculated through use of equations presented in Section 12.2.4.2.1 of this report. The soil concentration indicated for each chemical is the lowest of the goals calculated for each of the potentially exposed populations at the Site presented in Tables 30 and 31 and the estimated soil saturation concentration. The soil gas concentration indicated for volatile compounds is that calculated to be in equilibrium with the given soil concentration.
- (6) These RBSLs have been calculated through use of U.S. EPA Johnson and Ettinger vapor intrusion computer model. RBSLs for vapor intrusion were calculated only for those compounds considered to be volatile. Volatile compounds are defined to be chemicals that have Henry's Law constants greater than  $10^{-5}$  atmospheres-cubic meters per mole and molecular weights less than 200 grams per mole. The soil concentration listed is the lowest of the remediation goals presented in Table 29 and the estimated soil saturation concentration. The soil gas concentration indicated for VOCs and semi-volatile organic compounds is that calculated to be in equilibrium with the concentration of chemical in soil calculated to be protective of all potentially exposed populations at the Site.



**Table ES-1*****Summary of Site-Specific Leaching Values and Risk-Based Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

**Notes**

- (7) The soil concentration indicated is the soil saturation concentration because it was lower than the calculated leaching value or RBSL. Soil saturation concentration for COCs are calculated using the equation from U.S. EPA, 1 November 2000, Region 9 Preliminary Remediation Goals (PRGs) 1999 Memorandum from Stanford J. Smucker, Ph.D., Regional Toxicologist (SFD-8-B), Technical Support Team. Values of site-specific physical parameters used to calculate soil saturation concentrations are summarized in Table 24.
- (8) Because no published toxicity values exist for petroleum hydrocarbons, the direct contact RBSL for petroleum hydrocarbons is assumed equivalent to the Soil Screening Level of 1,000 mg/kg established by the Regional Water Quality Control Board, Los Angeles Region for petroleum hydrocarbons with carbon chain lengths of C<sub>13</sub> to C<sub>22</sub> in soil that is 20 to 150 feet above the groundwater surface.
- (9) RBSL for lead calculated using DTSC Lead Spread Version 7.0 computer model.



## 2. INTRODUCTION

Erler & Kalinowski, Inc. ("EKI") has prepared this Remedial Investigation ("RI") report on behalf of Price Pfister, Inc. ("Price Pfister") for the property located at 13500 Paxton Street in Pacoima, California ("Site"), which is incorporated as part of the City of Los Angeles, California. Figure 1 depicts the Site and its surroundings.

The State of California Environmental Protection Agency ("Cal/EPA"), Regional Water Quality Control Board, Los Angeles Region, ("RWQCB") is the lead regulatory agency for the RI at the Site. EKI conducted RI field activities described in this report from March 2002 to January 2003. These activities were performed in accordance with the *Work Plan for Additional Investigations* (EKI, 2002b) and the *Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study* (EKI, 2002d), as amended. The RI report has been prepared consistent with relevant Cal/EPA and United States Environmental Protection Agency ("U.S. EPA") guidance (RWQCB, 1996; U.S. EPA, 1988) and is submitted for approval by the RWQCB.

The purpose of this RI report is to summarize the findings of the RI and previous investigations, establish remedial action objectives ("RAOs"), and calculate numerical guidelines consisting of leaching values and risk-based screening levels ("RBSLs") that are intended to support attainment of the RAOs. RAOs will form the basis for evaluating remedial alternatives and recommending remedial actions for the Site in the Remedial Action Plan ("RAP") to be prepared. Remaining sections of the RI report present the following:

- Section 3, Site Background, summarizes the use history, known chemical releases, and previous investigations completed at the Site and nearby properties.
- Section 4, Remedial Investigation, describes the RI activities conducted at the Site.
- Section 5, Removal Actions, explains removal actions being implemented at the Site.
- Section 6, Physical Setting, summarizes surface features of the Price Pfister property, and the regional and local geology and hydrogeology.



- Section 7, Investigative Findings, discusses the nature and extent of chemicals in soil and groundwater at the Site in the context of historical uses and chemical releases that may have taken place.
- Section 8, COC Identification, identifies the chemicals of concern (“COCs”) in soil and groundwater at the Site.
- Section 9, Chemical Fate and Transport, assesses the persistence and potential migration of COCs.
- Section 10, Conceptual Site Model, summarizes the conceptual site model (“CSM”) for the Price Pfister property.
- Section 11, Remedial Action Objectives, establishes RAOs for soil at the Site.
- Section 12, Derivation of Leaching Values and RBSLs, calculates numerical guidelines for COCs in soil that support attainment of RAOs.
- Section 13, Use of Leaching Values and RBSLs, explains how the numerical guidelines are applied to identify COC sources in soil and to aid in evaluating whether remedial actions implemented to address these identified sources achieve RAOs.
- Section 14, Conclusions, states that data compiled from the RI and previous investigations are adequate for purposes of assembling and evaluating remedial actions for the Site.
- Section 15, References, lists the sources of information cited in this report.

Copies of lithologic logs of borings and well construction details, copies of laboratory reports associated with the RI, and the chemical database for the Site are included as appendices.



### **3. SITE BACKGROUND**

Discussion of the current status and use history of the Price Pfister property, previous investigations conducted at the Site, and a synopsis of chemical releases at neighboring facilities are presented in this section to provide an understanding of the RI that was performed.

#### **3.1 CURRENT SITE STATUS**

Plumbing products were manufactured at the Price Pfister property from approximately the mid-1950s to the end of 2002. Price Pfister has owned and operated the Site since 1983. As of January 2003, the only commercial operations being performed by Price Pfister at the Site relate to warehousing and shipping finished products. Price Pfister has decontaminated areas of the Site where chemicals were handled or stored, and has nearly completed removing manufacturing equipment from the Site. As discussed in Section 7, Price Pfister is in the process of obtaining approval from the County of Los Angeles Fire Department ("LAFD") that the chemical handling and storage areas have been properly closed.

#### **3.2 SITE USE HISTORY**

Review of historical aerial photographs and architectural drawings indicates that improvement of the Price Pfister property began sometime between 1949 and 1952 with construction of Building J. Buildings were added or expanded, and the Site was gradually paved between 1954 and 1995. Figure 2 depicts the building construction and paving history at the Site.

##### **3.2.1 Chemicals Employed in Manufacturing Operations**

Site operations have included foundry and die casting, machining, polishing, degreasing, powder coating, electroplating, plastic injection molding, assembly, and other operations associated with the manufacturing of plumbing products (Price Pfister, 1995). The primary chemicals used in these operations included tetrachloroethene ("PCE"), 1,1,1-trichloroethane ("1,1,1-TCA"), aqueous based detergents, petroleum naphtha, cutting oil, hydraulic oil, linseed oil, kerosene, hexavalent chromium, copper, lead, nickel, tin, zinc, acid and alkaline solutions, cyanide, sodium hypochlorite, and sodium



metabisulfite. The chemicals were employed for a variety of purposes, including casting, electroplating, machining, metal degreasing, and wastewater treatment.

### **3.2.2 Wastes Historically Generated by Manufacturing Operations**

Price Pfister generated wastes that were considered hazardous under the Resource Conservation and Recovery Act ("RCRA"), and wastes that were considered hazardous based upon criteria specific to the State of California, which are commonly referred to as "non-RCRA" hazardous wastes. Historically generated RCRA hazardous wastes consisted of electroplating wastewater filter cake assigned the RCRA waste code F006, spent chlorinated solvents assigned the RCRA waste code F002, used refractory brick assigned the RCRA waste code D008, and spent petroleum naphtha assigned the RCRA waste code D001 (Price Pfister, 1995). Historically generated non-RCRA hazardous wastes consisted of buffing lint, oil-containing sorbent material, oily water emulsions, and used oil (Price Pfister, 1995). RCRA and non-RCRA hazardous wastes were transported to off-Site, permitted waste management facilities for treatment and disposal. Slag, spent casting sand, and metal-containing baghouse dust from the foundry, and metal chips and shavings produced by machining were considered excluded recyclable materials and were sent to off-Site, metal reclamation facilities.

### **3.2.3 Chemical Product and Waste Handling and Storage**

Chemical products or wastes were stored in various containers that included roll-off bins, drums, waterproof sacks, and above ground storage tanks ("ASTs"). Between 1954 and 1989, petroleum products and used oil were also kept in ten underground storage tanks ("USTs"). The ASTs and USTs have been removed from the Site. Figure 3 depicts the locations of former ASTs and USTs and other areas at the Site where chemical products or wastes were stored. Historical chemical handling occurred in the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area. The locations of these areas are shown on Figure 4. Section 7 explains in greater detail the uses of the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area, and describes the nature and extent of chemicals at these areas. Uses of other locations at the Site also are addressed in Section 7.

### **3.2.4 UST Closure Status**

Table 1 lists the volumes, contents, dates of installation, and removal for each of the former ten USTs at the Price Pfister property. The table also indicates that regulatory agency closure has been received for only 3 of 10 USTs owing to the different times that



the tanks were removed. It is proposed that implementation of the RAP for the Site as approved by RWQCB constitutes regulatory agency closure of the former USTs as well.

### 3.3 PREVIOUS INVESTIGATIONS AT THE SITE

Several environmental investigations were performed at the Site prior to the RI. These previous investigations included soil sampling related to removal of the ten USTs, completion of a Preliminary Endangerment Assessment/Site Inspection ("PEA/SI") by Cal/EPA, Department of Toxic Substances Control ("DTSC"), performance of a Phase I Environmental Site Assessment, and sampling of shallow soil at selected locations at the Site. Section 15 lists reports (DTSC, 1997a; EKI, 2001a, 2001b, 2001c, 2001d, 2000, 1999, 1998; Enviropro, 1989, 1988, 1986, 1984) that describe the objectives of previous investigations; summarize field sampling procedures and laboratory analytical methods; provide copies of field notes, lithologic logs of borings, and laboratory reports; and discuss investigative findings.

The previous investigations revealed the following:

- Volatile organic compounds ("VOCs"), consisting primarily of PCE, were detected in soil in the Central Building P Area, Building A Area, and the Oil Staging Area.
- Petroleum hydrocarbons were present in soil and free hydrocarbon product ("FHP") on groundwater in monitoring well MW-1 at the Building A Area.
- PCE, 1,1,1-TCA, trichloroethene ("TCE"), 1,1-dichloroethene ("1,1-DCE"), cis-1,2-dichloroethene ("cis-1,2-DCE") and other VOCs were detected in groundwater on the northwestern portion of the Site in the up-gradient direction of groundwater flow.

The presence of VOCs in groundwater in the up-gradient direction of groundwater flow indicated that chemical releases at nearby facilities are affecting environmental conditions at the Price Pfister property. Section 3.4 discusses chemical releases at nearby facilities for which environmental assessments have been conducted.



### 3.4 CHEMICAL RELEASES AT NEARBY FACILITIES

The Price Pfister property is situated at the northeastern portion of the San Fernando Valley. Groundwater quality in the San Fernando Valley has been a concern of U.S. EPA, RWQCB, DTSC, and the Los Angeles Department of Water and Power ("LADWP") since VOCs in groundwater were discovered in the central portion of the San Fernando Valley in the 1980s, a few miles southeast of the Site. RWQCB and DTSC have led efforts to assess past and current chlorinated solvent handling, storage, and disposal practices at commercial and industrial facilities located in Pacoima.

Environmental assessments have been conducted at five facilities near the Site. The five facilities consist of Holchem, Inc./Brenntag West, Inc. ("Holchem/Brenntag"), D&M Steel/Paragon Precision Products ("D&M Steel"), Chapman Manufacturing/Flynns Plating ("Chapman"), American Etching and Manufacturing ("AE&M"), and a Chevron Service Station. As discussed in Sections 3.4.1 through 3.4.5, examination of information submitted to the regulatory agencies indicates that actual or potential chemical releases at one or more of these facilities have contributed to VOC contamination detected in groundwater at or near the Price Pfister property (EKL, 2001c). Figure 5 depicts the locations of the five facilities and concentrations of selected VOCs that have been measured in groundwater at these facilities. Numerous other industrial facilities are located near the Site for which little or no environmental assessment has been conducted. The other facilities also may be contributing chemicals to groundwater but are not discussed herein because no data on the environmental conditions of the facilities have been compiled.

#### 3.4.1 Holchem/Brenntag Facility

The Holchem/Brenntag facility is located at 13546 Desmond Street (Figure 5) and is approximately 500 feet north of the Price Pfister property in the up-gradient direction of groundwater flow, as explained in Section 6. Chemical releases at the Holchem/Brenntag facility are the source of VOCs measured in groundwater samples collected from monitoring wells A1 and A2 constructed by DTSC at the Price Pfister property. VOCs in other wells at the Site also originate from the Holchem/Brenntag facility.

The Holchem/Brenntag facility was used for chemical distribution from at least 1967 to 2001. Chemical products stored and distributed from at least 18 ASTs and 21 USTs at the Holchem/Brenntag facility included PCE, TCE, 1,1,1-TCA, methyl ethyl ketone, methyl isobutyl ketone, methylene chloride, acetone, toluene, gasoline, methanol, sodium hypochlorite, and caustic soda. Chase Chemical operated the enterprise from 1967 to



1987. Holchem assumed operations in 1987 and continued solvent distribution until 2001 when the facility was sold to Brenntag West, Inc.

Soil and groundwater investigations have been performed at the Holchem/Brenntag facility since 1984 (C. Johnson Environmental, 1999 and California Environmental, 1990, 1995, and 1999). In 1988 and 1989, six monitoring wells were constructed at the facility to assess the extent of groundwater contamination. Groundwater sampling led to the discovery of free product on groundwater and dissolved chemicals in groundwater.

Investigation and remediation of the discovered chemical releases are subject to the provisions of a Consent Decree that Holchem entered into with DSTC in April 2000. The Consent Decree requires Holchem to "design, implement, and operate removal actions necessary to minimize the spread of contaminants at the Site, including a soil vapor extraction ("SVE") system and an air sparging system." The Consent Decree also requires Holchem to conduct a RI, prepare RI and feasibility study ("FS") reports, and develop a RAP once the RI/FS reports have been approved by DTSC. Brenntag West, Inc. has apparently assumed responsibility for complying with the Consent Decree and has retained Arcadis Geraghty & Miller ("AG&M") to implement the RI.

Groundwater samples obtained from monitoring wells at the Holchem/Brenntag facility in August 2002 contained maximum concentrations of PCE at 740 micrograms per liter ("µg/L"), 1,1,1-TCA at 730 µg/L, TCE at 1,300 µg/L, cis-1,2-DCE at 32,000 µg/L, 1,1-DCE at 94 µg/L, methyl ethyl ketone at 110,000 µg/L, methyl isobutyl ketone at 3,700 µg/L, toluene at 3,800 µg/L, and xylenes at 5,900 µg/L. Other VOCs were detected at lower concentrations. According to AG&M (2001), the highest VOC concentrations ever measured in groundwater at the Holchem/Brenntag facility were PCE at 6,600 µg/L, 1,1,1-TCA at 43,900 µg/L, TCE at 27,400 µg/L, 1,1-DCE at 370 µg/L, methyl ethyl ketone at 2,300,000 µg/L, methyl isobutyl ketone at 83,000 µg/L, toluene at 175,000 µg/L, and xylenes at 19,000 µg/L.

The maximum concentration of cis-1,2-DCE in groundwater at the Holchem/Brenntag facility has increased from 9,200 µg/L in April 1999 to 32,000 µg/L in August 2002. Microorganisms will degrade PCE and TCE into cis-1,2-DCE under anaerobic conditions (i.e., the absence of oxygen). Consequently, cis-1,2-DCE will tend to accumulate and its concentration will increase in groundwater as PCE and TCE are biologically degraded and their concentrations decrease in groundwater (Bouwer, 1994).

Monitoring well A2 (Figure 5) is constructed on the western side along the northern boundary of the Price Pfister property and allows assessment of impacted groundwater



that is migrating from the Holchem/Brenntag facility to the Site. Groundwater samples from monitoring well A2 in August 2002 contained PCE at 290 µg/L, 1,1,1-TCA at 140 µg/L, TCE at 230 µg/L, cis-1,2-DCE at 3,000 µg/L, 1,1-DCE at 100 µg/L, 1,1-dichloroethane ("1,1-DCA") at 69 µg/L, and 1,2-dichloroethane ("1,2-DCA") at 24 µg/L.

The fact that these VOCs are in the up-gradient direction of groundwater flow of any known chemical usage at the Price Pfister property and are consistent with the types of chemicals found at the Holchem/Brenntag facility indicates that the VOCs originate from the Holchem/Brenntag facility. In particular, the concentrations of cis-1,2-DCE detected in well A2 demonstrate VOCs are migrating in groundwater from the Holchem/Brenntag facility. No cis-1,2-DCE attributable to chemical releases at the Site is found in any monitoring wells at the Price Pfister property, which is consistent with oxygen concentrations in groundwater beneath the Site that are too high to allow the biological formation of cis-1,2-DCE, as explained in Section 9.1.2. In contrast, very little dissolved oxygen exists in groundwater at the Holchem/Brenntag facility, which would lead to the biological degradation of PCE and TCE to cis-1,2-DCE. A possible reason for the lower dissolved oxygen concentrations in groundwater at the Holchem/Brenntag facility is that many of the chemicals (e.g., acetone, methyl ethyl ketone, methyl isobutyl, toluene) released at the facility are readily biodegradable, which would deplete oxygen in groundwater at the Holchem/Brenntag facility. Biological processes are discussed further in Section 9.1.2.

Dissolved oxygen concentrations ranging from 0.01 to 0.40 milligrams per liter ("mg/L") were measured in groundwater samples collected from six monitoring wells at the Holchem/Brenntag facility. Groundwater samples from three monitoring wells also had oxidation-reduction potentials that ranged from -209 to -301 millivolts. U.S. EPA (1998b) states that dissolved oxygen concentrations less than 0.5 mg/L and oxidation-reduction potentials less than -100 millivolts indicate anaerobic conditions favorable for the biological formation of TCE from PCE and cis-1,2-DCE from TCE. Section 9.2 further discusses the migration of VOCs in groundwater at and near the Price Pfister property.

### **3.4.2 D&M Steel Facility**

D&M Steel occupies the facility located at 11035 Sutter Avenue, which is approximately 100 feet southwest of the Price Pfister property (Figure 5). Chemical releases at the D&M Steel facility may be contributing VOCs to groundwater near the Site.



Paragon Precision Products owned the D&M Steel property from the late 1950s until 1980. Paragon Precision Products was a manufacturer of steel and aluminum parts. Paragon Precision Products used a 1,1,1-TCA degreaser and disposed of waste oil in a brick-lined vault. Kleinert Industries acquired the facility from Paragon Precision Products in 1981. Investigations conducted on behalf of Kleinert Industries (CET Environmental Services, Inc., 1993; Thorne Environmental Inc., 1990) found that petroleum hydrocarbons and chlorinated solvents had impacted soil from immediately beneath the former vault to the depth at which groundwater was encountered between 60 to 65 feet below ground surface ("ft bgs"). Petroleum hydrocarbons characteristic of oils were detected at concentrations ranging from 6,200 mg/kg at 5 ft bgs to 3,000 mg/kg at 55 ft bgs beneath the former vault. PCE and 1,1,1-TCA were measured at maximum concentrations of 9.8 mg/kg at 15 ft bgs and 5.3 mg/kg at 45 ft bgs, respectively, at this location. Ethylbenzene, toluene, and total xylenes were detected at concentrations as high as 82, 1,200, and 500 mg/kg in soil beneath the former vault.

In 1990, three groundwater monitoring wells MW-1 through MW-3 were constructed at the D&M Steel facility. Thorne Environmental Inc., consultant for Kleinert Industries, concluded that VOCs found in groundwater samples from these wells were due to chemicals released from the former vault. Thorne Environmental Inc. (1990) stated the following:

The presence of the same halogenated organic compounds in groundwater from all of the wells with the highest concentrations in MW-1 suggests that the source of these constituents is probably the disposal area.

The three monitoring wells were sampled together on only one occasion in March 1990. Groundwater samples from the three wells were found to contain maximum concentrations of PCE at 1,100 µg/L, 1,1,1-TCA at 1,300 µg/L, TCE at 329 µg/L, 1,1-DCE at 98 µg/L, 1,1-DCA at 54 µg/L, and 1,2-DCA at 10 µg/L.

In March 1990, the groundwater elevation in well MW-3, located on the north side of the facility, was approximately 25 feet lower than the elevations in the other two wells. The dramatically lower groundwater elevation in well MW-3 is believed to be due to geologic faults that have been mapped in the vicinity. Section 6 discusses the regional and local geology and hydrogeology, and explains the subsurface physical conditions at and near the Site.

Kleinert Industries sold the facility to D&M Steel in 1990. D&M Steel manufactures welded steel products for the construction industry as well as specialty steel products. A



SVE system operated at the D&M Steel facility from May 1990 through February 1991, during which time petroleum hydrocarbon concentrations in extracted soil vapor decreased from 750 to 8 parts per million by volume ("ppmv"), and total concentrations of chlorinated solvents in extracted soil vapor were reduced from 125 to 0.05 ppmv.

DTSC investigated soil and groundwater at the D&M Steel facility in 1997 and issued a PEA/SI report summarizing its investigative findings on 1 November 1999. The PEA/SI report recommended that further assessment of the facility be performed, including annual sampling of groundwater monitoring wells at the facility, construction of a groundwater monitoring well in the down-gradient direction of groundwater flow, further hydrogeologic evaluation, and additional investigation of chemical releases on the property. U.S. EPA concurred and assigned the D&M Steel facility a higher priority, meaning that additional investigation and remediation will be required at this facility.

Analytical results for groundwater samples collected from monitoring well MW-1 at the D&M Steel facility were included in a Holchem/Brenntag quarterly groundwater monitoring report submitted to DTSC (AG&M, 2001). In June 1999, which are the most recent analytical results available, groundwater at the D&M Steel facility contained PCE at 200 µg/L, TCE at 64 µg/L, 1,1,1-TCA at 22 µg/L, cis-1,2-DCE at 33 µg/L, 1,1-DCE at 23 µg/L, 1,1-DCA at 3.5 µg/L, 1,2-DCA at 0.9 µg/L, and chloroform at 0.9 µg/L.

### 3.4.3 Chapman Facility

The Chapman facility is located at 13748 Desmond Street, which is approximately one-quarter of a mile northwest of the Price Pfister property (Figure 5). It is unknown whether chemical releases at the Chapman facility have affected groundwater conditions at the Price Pfister property because no investigation of groundwater quality at the Chapman facility has been performed.

Flynns Plating was a former occupant of the facility. Flynns Plating used chlorinated solvents for vapor degreasing, and chromates, copper, zinc, cadmium, and nickel for electroplating. In 1984, the City of Los Angeles Department of Health Services ("LADHS") cited Flynns Plating for disposing of cyanide, nickel, cadmium, phenolics, and TCE onto an adjoining lot (LADHS, 1984). Four soil samples were collected at the suspected disposal location and analyzed for TCE and phenolics. TCE was reportedly detected at concentrations between 97 and 12,000 mg/kg. Phenolics were present at a maximum concentration of 13 mg/kg. Four soil samples were also analyzed for selected metals. Copper was detected in the soil samples at a maximum concentration of 90,000 mg/kg and cadmium was detected at a maximum concentration of 1,230 mg/kg.



Chapman produced metal storage containers for the electronic industry. According to the WIP Inspection Checklist, dated 12 January 1996, submitted by Chapman to RWQCB, no USTs, sumps, clarifiers, or ASTs existed at this facility. Following review of the WIP Inspection Checklist, U.S. EPA and RWQCB issued a joint "no further action" letter to Chapman on 31 May 1996 with regards to participating in the regional investigation and remediation of the San Fernando Valley.

#### 3.4.4 AE&M Facility

The AE&M facility is located at 13730 Desmond Street is adjacent to the Chapman facility, which is approximately one-quarter mile northwest of the Price Pfister property (Figure 5). As with the Chapman facility, it is unknown whether chemical releases at the AE&M facility have affected groundwater conditions at the Price Pfister property because no investigation of groundwater quality at the AE&M facility has been performed.

According to AE&M's *Well Investigation Program ("WIP") Facility Audit Report* (AE&M, 1995), AE&M has been manufacturing metal parts for the electronic industry at this location for the past 20 years. AE&M's manufacturing activities have entailed operating PCE and 1,1,1-TCA degreasers, hexavalent chromium plating tanks, and coating dip tanks. Chemicals employed in AE&M's manufacturing activities have included PCE, TCE, 1,1,1-TCA, methanol, methylene chloride, toluene, xylenes, petroleum hydrocarbons, and naphthalene (AE&M, 1995). Occupants of 13730 Desmond Street before 1972 included two auto body businesses and a sewing shop.

In 1980, AE&M installed a 6,000-gallon ferric chloride UST and a 3,000-gallon solvent UST at the facility. The ferric chloride UST was removed on 13 May 1999 (Spectrum Engineering, Inc., 1999). Two soil samples were collected from the bottom of the pit following removal of the UST. No benzene, toluene, ethylbenzene, and total xylenes or methyl tertiary butyl ether were measured above analytical method reporting limits in either of the samples. LAFD issued a no further action letter related to removal of the ferric chloride UST on 6 October 1999.

The solvent UST was removed from the A&M facility on 16 August 1984. Two soil samples were collected from the bottom of the pit following removal of the UST. The samples were analyzed and reported to contain 0.105 and 0.039 milligrams per kilogram ("mg/kg") of PCE. In April 1985, two additional soil samples were collected near the



UST at depths of 23 and 40 ft bgs. No PCE was measured above the analytical method reporting limit of 0.3 mg/kg in either of the samples.

A soil gas survey was performed at the AE&M facility on 30 May 1996 (Kinworthy/Patton Environmental, Inc., 1996a, 1996b). Soil gas samples were collected at eleven locations at a depth of 5 ft bgs. PCE was detected at a maximum concentration of 122 µg/L in soil gas. At one location, additional soil gas samples were collected at depths of 20, 30, and 34 ft bgs. PCE was detected at a maximum concentration of 109 µg/L in the deeper samples of soil gas. Additional VOCs were present at lower concentrations. Given the soil gas survey analytical results, RWQCB issued a "no further action" letter to AE&M on 19 November 1996 with regards to participating in the regional investigation and remediation of the San Fernando Valley.

### **3.4.5 Chevron Service Station**

The Chevron Service Station is located at 11113 San Fernando Road and is approximately 500 feet southwest of the Site. No investigation of groundwater quality at the Chevron Service Station has been conducted.

In 1989, a soil investigation was performed at this facility following removal of four fuel USTs and one used oil UST (Harding Lawson Associates, 1993, 1989). Several borings were completed at the facility; the deepest boring was drilled to 110 ft bgs. No groundwater was encountered in the borings. Soil samples were analyzed only for petroleum hydrocarbons and related fuel constituents. Maximum concentrations of petroleum hydrocarbons, benzene, toluene, ethylbenzene, and total xylenes detected in soil were 600, 3, 41, 17, and 110 mg/kg, respectively. Impacted soil at the Chevron Service Station was remediated by a SVE system (Wayne Perry, Inc., 1996).



## 4. REMEDIAL INVESTIGATION

Price Pfister has completed a RI of the Price Pfister property in response to the findings of the previous investigation findings described in Section 3.

### 4.1 CHEMICALS OF POTENTIAL CONCERN

The RI conducted of the Price Pfister property was intended to identify locations that serve as sources of chemicals of potential concern ("COPCs") in the unsaturated zone, and to assess the distribution of COPCs in soil, soil gas, and groundwater at the Site. COPCs consisted of VOCs, petroleum hydrocarbons, metals and cyanide, semi-volatile organic compounds ("SVOCs"), and polychlorinated biphenyls ("PCBs"). COPCs were identified based on the findings of previous investigations, review of Site records, and interviews of Price Pfister personnel familiar with environmental matters at the Site. Tables 2 and 3 summarize the types of analyses performed on soil and groundwater samples collected at the Site.

### 4.2 DESCRIPTION OF REMEDIAL INVESTIGATION ACTIVITIES

RI activities were proposed in the *Work Plan for Additional Investigations* (EKI, 2002d) and *Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study* (EKI, 2002b). The RI was performed in a step-wise fashion from March 2002 through January 2003 and built upon the findings from prior investigations discussed in Section 3.3. The RI included performance of an active shallow soil gas survey, collection and analysis of soil samples from borings and trenches, and construction and sampling of several types of wells. The numbers and types of wells currently existing at the Site, including wells built in connection with removal actions described in Section 5, consist of the following:

- 14 multi-depth soil vapor monitoring wells
- 7 combination soil vapor/groundwater monitoring wells
- 13 groundwater monitoring wells, excluding wells A1 and A2 constructed by DTSC as part of the investigation of chemical releases at the Holchem/Brenntag facility



- 7 soil vapor extraction wells
- 5 FHP collection wells and 1 soil vapor monitoring/FHP collection well

Table 4 summarizes the construction details of soil vapor monitoring wells, soil vapor/groundwater monitoring wells, groundwater monitoring wells, soil vapor extraction wells, FHP collection wells, and the soil vapor monitoring/FHP collection well. Appendix A includes the borehole or lithologic logs and construction diagrams of borings, exploratory trenches, and various types of wells completed as part of the RI and previous investigations. Appendix C contains a compact disk of laboratory reports for the physical and chemical tests conducted on samples collected during the RI. Groundwater level elevations are summarized in Table 5, and groundwater monitoring well sampling forms are included as Appendix D.

#### **4.2.1 Collection and Analysis of Shallow Active Soil Gas Samples**

Active soil gas samples were collected at 90 locations throughout the Site in March 2002. InterPhase Environmental, Inc. ("InterPhase") of Los Angeles, California, obtained soil gas samples at approximately 5 ft bgs at locations SG-1 through SG-90, as shown on Figure 3. Deeper soil gas samples also were obtained between 10 and 15 ft bgs at ten of the locations (i.e., SG-1, SG-20, SG-23, SG-27, SG-36, SG-59, SG-61, SG-63, SG-66, and SG-67).

The collection and analysis of soil gas samples followed RWQCB (1997) guidance. Collected soil gas samples were analyzed for VOCs by InterPhase using a mobile gas chromatograph/Hall<sup>®</sup> electrolytic conductivity detector ("GC/ELCD") with confirmation by a flame ionization detector and photo ionization detector. In addition, eight soil gas samples were analyzed by GC/mass spectroscopy ("MS") by Centrum Analytical Mobile Laboratories, Inc. Duplicate soil gas samples were obtained in Summa canisters and transported under chain-of-custody procedures to Calscience Environmental Laboratories, Inc. ("Calscience") of Garden Grove, California, for GC/MS analysis of VOCs by U.S. EPA Method TO-14A.

#### **4.2.2 Collection and Analysis of Soil Gas Samples from Soil Vapor Monitoring Wells**

Based upon the findings of the active soil gas survey, 14 multi-depth soil vapor monitoring wells were constructed to establish the vertical profile of VOCs in the unsaturated zone at the Price Pfister property in March 2002, and June and July 2002.



West Hazmat Drilling Corporation ("West Hazmat") of Anaheim, California, constructed the vapor monitoring wells in borings completed by a hollow-stem auger drill rig. The wells are designated SVMW-201 through SVMW-214, and were constructed at various locations throughout the Site (Figure 3). The soil vapor monitoring wells have three 6-inch screen intervals. The first screen interval of the wells is between 10 to 24 ft bgs, the second screen interval is between 25 to 39 ft bgs, and the third screen interval is between 40 to 54 ft bgs. The bottoms of the first, second, and third screen intervals correspond to approximately 45, 30, and 15 feet above the groundwater surface, respectively, at each well location. An illustration of the typical construction of a soil vapor monitoring well at the Site is provided in Appendix A.

Soil gas samples were collected from the vapor monitoring wells in July 2002, late October and early November 2002, December 2002, and, after a planned temporary shutdown, in early January 2003 as part of the RI. Soil gas collection procedures followed RWQCB guidance (1997) and generally consisted of attaching a pump to plastic tubing affixed to the soil vapor monitoring well. The pump drew soil gas from the desired screen interval into either a pre-cleaned glass bulb for VOC analysis by a mobile GC/ECLD, or a Summa canister for GC/MS analysis by U.S. EPA Method TO-14A or TO-15 by Calscience or K-Prime, Inc. ("K-Prime") of Santa Rosa, California.

A field study had been performed before the July 2002 soil gas sampling event to determine the appropriate volumes of soil gas to be purged in order to obtain representative soil gas samples from the screen intervals. The field study was conducted at soil vapor monitoring well SVMW-208 on 1 July 2002. Soil gas samples were collected from the first screen interval of well SVMW-208 after purging quantities of soil gas equivalent to 1, 3, 7, 10, and 15 times the volume of the well tubing and glass bulb. Analysis of these samples by a mobile GC/ECLD found that VOC concentrations did not appreciably change after 10 purge volumes. Similar testing found VOC concentrations in soil gas remained relatively constant after purging 10 and 7 purge volumes from the second and third screen intervals, respectively. Consequently, soil gas samples considered representative of Site conditions were obtained for analysis in July 2002, late October and early November 2002, December 2002, and January 2003 after removing 10 purge volumes from each of the screen intervals in soil vapor monitoring wells.

#### **4.2.3 Collection and Analysis of Soil Gas and Groundwater Samples from Soil Vapor/Groundwater Monitoring Wells**

West Hazmat constructed 7 combination vapor/groundwater monitoring wells in borings completed by a hollow-stem auger drill rig. These soil vapor/groundwater monitoring



wells are designated PMW-9 through PMW-15. As shown on Figure 3, the wells are situated in the southeastern portion of the Site. All soil vapor/groundwater monitoring wells have three 6-inch screen intervals at the same depths as the soil vapor monitoring wells. In addition, soil vapor/groundwater monitoring wells PMW-13, PMW-14, and PMW-15 have a fourth 6-inch screen interval between 60 to 65 ft bgs. A fourth screen had to be installed in the wells due to the greater depth that groundwater is encountered at these locations. Each soil vapor/groundwater monitoring well has a 20-foot long screen to allow for the collection of groundwater. The screen is positioned so approximately 5 feet of screen is above the depth where groundwater is first encountered. An illustration of the typical construction of a soil vapor/groundwater monitoring well is provided in Appendix A.

Soil gas samples were obtained from soil vapor/groundwater monitoring wells following the methodology described for soil vapor monitoring wells in Section 4.2.2. Quarterly groundwater sampling of soil vapor/groundwater monitoring wells and groundwater monitoring wells at the Price Pfister property was initiated in 2002 for those wells that do not contain FHP. FHP collection is discussed in Section 5.2. Groundwater samples are collected from wells at the Site employing U.S. EPA (1995a, 1995b) low-flow sampling techniques.

#### **4.2.4 Collection and Analysis of Groundwater Samples from Groundwater Monitoring Wells**

West Hazmat constructed groundwater monitoring wells PMW-19 through PMW-26 with use of a hollow-stem auger drill rig. Monitoring wells PMW-19 and PMW-20 (Figure 3) were constructed with 30-foot long screens because these were the first wells to be constructed off-Site by Price Pfister and the magnitude of groundwater level fluctuations off the Price Pfister property has not been established. Monitoring wells PMW-22 through PMW-26 have 20-foot long screens. The screens of wells PMW-22 through PMW-26 are positioned so 5 feet of screen is above the depth where groundwater is first encountered. Monitoring well MW-21B is a deeper well at the Site. Well MW-21B extends to approximately 110 ft bgs compared with 70 to 90 ft bgs for other groundwater monitoring wells. Well MW-21B has a 10-foot long screen because it is completed deeper in the saturated zone and did not have to be designed to accommodate groundwater level fluctuations.

Collection of groundwater samples was performed consistent with low-flow sampling techniques described in the workplans (EKI 2002b, 2002d).



#### 4.2.5 Collection and Analysis of Soil Samples from Borings

Borings were completed by West Hazmat using a hollow-stem auger drill rig or by InterPhase using direct-push technology ("DPT"). Table 2 lists the samples collected from each boring and the types of analyses conducted on the samples. PTS Laboratories of Santa Fe Springs, California, performed physical testing of collected soil samples. K-Prime performed chemical testing.

West Hazmat completed boring SB-11 at the Oil Staging Area, borings SB-12 through SB-16 and A1 through A14 at the Building A Area, and borings MS-1, and W1 through W27 at the Central Building P Area (Figure 3). Soil samples were collected at approximately 5-foot depth intervals for lithologic logging of borings, which ranged in depth from approximately 8 to 55 ft bgs. Soil samples were also obtained at selected depth intervals for physical or chemical analyses in pre-cleaned stainless steel liners. For soil samples tested for non-VOCs, such as petroleum hydrocarbons, metals and cyanide, and SVOCs, the ends of the liners were covered with Teflon™ sheets and plastic caps, placed in a cooled container, and transported to the laboratory for physical or chemical testing under chain-of-custody procedures. Soil samples tested for VOCs were collected from liners using EnCore™ samplers in accordance with U.S. EPA Method 5035. EnCore™ samples were transported to the laboratory under chain-of-custody procedures.

InterPhase completed borings L1 through L34 at the Building L Area (Figure 3) with a DPT Geoprobe® rig. The depth of each boring was 4 ft bgs and was continuously cored for lithologic logging. The Geoprobe® rig used a hydraulic ram that pushed hollow rods into undisturbed soil. Soil samples were collected inside 46-inch long disposable butyrate liners that fit within the rods. Soil samples retained for testing were cut from the butyrate liners and the ends of the samples were covered with Teflon™ sheets and plastic caps, placed in a cooled container, and transported to the laboratory under chain-of-custody procedures.

#### 4.2.6 Collection and Analysis of Soil Samples from Trenches

West Hazmat dug 8 exploratory trenches T-1 through T-8 with a backhoe by at the Building L Area. Figure 3 depicts the trench locations at the Building L Area. The dimensions of each trench were approximately 5 feet long by 2 feet wide by 4 feet deep. Soil samples were collected from selected trenches and analyzed for COPCs as noted in Table 2. Soil samples analyzed for non-VOCs were collected from the trenches with a pre-cleaned stainless steel or plastic spoon. Soil was transferred from the spoon to a pre-cleaned glass jar and sealed with a screw-top lid. Soil samples analyzed for VOCs



were collected by pushing EnCore™ samplers directly into undisturbed soil in the sides of the trenches. Collected soil samples were placed in a cooled container, and transported under chain-of-custody procedures to K-Prime for testing.

#### **4.2.7 Review of Regional Well Lithologic Logs**

EKI contacted several agencies to review available geologic information pertaining to groundwater monitoring wells, water production wells, oil and gas wells, or other wells that may have been constructed in the region. The purpose of this review was to establish the depth to bedrock near the Price Pfister property.

LADWP has constructed two groundwater monitoring wells, PA-01 and PA-02, in the up-gradient groundwater flow direction of the Tujunga municipal supply well field (Figure 6). Wells PA-01 and PA-02 are located west of the Verdugo Fault approximately 1,500 and 5,000 feet, respectively, south of the Site. The Verdugo Fault and physical setting of the Price Pfister property is discussed in Section 6.

EKI reviewed the guard resistivity log for well PA-01 and the point resistivity log for well PA-02. In the boring for monitoring well PA-01, sands and gravels were encountered to a depth of approximately 240 ft bgs; and sands, sandy clays, and gravelly, sandy clays were encountered from approximately 240 to 440 ft bgs. Construction of well PA-01 was stopped at approximately 442 ft bgs to avoid hitting deposits of naturally occurring petroleum hydrocarbons. Bedrock was not encountered during construction of well PA-01. In the boring for monitoring well PA-02, sand with gravel was encountered to a depth of approximately 300 ft bgs; clay was found from 300 to 315 ft bgs; and sands, silts, and clays were encountered from approximately 315 to 730 ft bgs. Bedrock consisting of sandstone and shale was tentatively identified in well PA-02 at a depth of 730 ft bgs. Well PA-02 was constructed to a depth of approximately 800 ft bgs.

EKI also reviewed the lithologic log for an oil and gas well, designated well D. The log provides an estimate of the depth to bedrock east of the Verdugo Fault, which is the side of the fault that the Price Pfister property is situated. Well D is located approximately 2,000 feet north of the Site (Figure 6). Bedrock was encountered at a depth of 250 ft bgs in the boring of this well. Well D is the only well that is on the same side of the Verdugo Fault as the Price Pfister property for which a lithologic log was available for review. Actual depth of bedrock may be shallower or deeper than 250 ft bgs beneath the Price Pfister property.



## 5. REMOVAL ACTIONS

Price Pfister has initiated removal actions of VOCs and FHP in the subsurface at the Site. Removal actions being performed by Price Pfister entail recovering VOC vapors from the unsaturated zone at the Central Building P Area and Oil Staging Area, and skimming FHP from groundwater at the Building A Area.

### 5.1 SVE SYSTEMS

In August 2002, two SVE systems were constructed at the Site in accordance with the *Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study* (EKI, 2002d) and South Coast Air Quality Management District permit. One system was constructed at the Central Building P Area and the other was constructed at the Oil Staging Area. Both systems began operating in September 2002.

Four SVE wells (i.e., PSVE-1 through PSVE-4) were constructed at the Central Building P Area and three SVE wells (i.e., PSVE-5 through PSVE-7) were constructed at the Oil Staging Area. Except for well PSVE-3, SVE wells located at the Central Building P Area are screened from approximately 35 to 55 ft bgs. SVE well PSVE-3 is screened from approximately 33 to 48 feet bgs because encountered subsurface conditions preventing drilling below 48 ft bgs at this location. In the Oil Staging Area, SVE well PSVE-5 is screened from approximately 31 to 51 feet bgs, and SVE wells PSVE-6 and PSVE-7 are screened from approximately 35 to 55 feet bgs. Construction details of SVE wells are provided in Appendix A.

A blower is connected to the SVE wells in the Central Building P Area and Oil Staging Area. Each of these blowers has a capacity of 250 standard cubic feet per minute and recovers VOCs by imparting a vacuum to the wells. Extracted soil gas is treated at each area by conveying the soil gas through two 1,000-pound vapor-phase granular activated carbon contactors connected in series. As described in Sections 4.2.2 and 4.2.3, soil vapor monitoring wells and soil vapor/groundwater monitoring wells were constructed as part of the RI that allow collection and analysis of soil gas samples to evaluate the performance of the SVE systems.

Collection and analysis of soil gas samples from vapor monitoring wells and soil vapor/groundwater monitoring wells in July 2002 detected PCE as high as 86,000 µg/L in soil vapor monitoring well SVMW-202 in the Central Building P Area before beginning



operation of the SVE systems in September 2002 (Figure 8). Sampling conducted in late October and early November 2002, and in December 2002 after the SVE systems had operated for approximately 1-1/2 and 3 months, respectively, revealed a dramatic decline in PCE concentrations in soil gas throughout the unsaturated zone over much of the Site (Figures 9 and 10). For example, the maximum PCE concentrations in soil gas samples from well SVMW-202 decreased from 86,000 µg/L in July 2002 to 640 µg/L in December 2002.

The total mass of VOCs that has been recovered by the SVE systems as of 14 January 2003 is approximately 1,470 pounds. As shown by the breakdown below, most of this mass is PCE.

#### Summary of VOCs Recovered by SVE Systems as of 14 January 2003

VOC	Estimated Mass of VOCs Recovered by SVE Systems (lbs)		
	Central Building P Area	Oil Staging Area	Totals
PCE	837	516	1,350
1,1,1-TCA	37	10	47
TCE	15	10	25
1,1-DCE	29	15	44
Totals	918	551	≈1,470

Assuming the total mass of VOCs recovered by the SVE systems has a liquid density essentially equal to that of PCE, which is 1.6 g/cm<sup>3</sup> (Schwille, 1988), the total mass of VOCs removed by the SVE system is equivalent to approximately 110 gallons of liquid. Figures 12 and 13 plot the cumulative VOC mass recovery over time for the SVE systems at the Central Building P Area and Oil Staging Area.

The SVE systems were shutdown for approximately 3 weeks between 20 December 2002 and 14 January 2003 to evaluate the extent to which VOCs in soil gas recover. Soil gas samples were collected between 2 and 7 January 2003, which corresponds to a shutdown period of 13 to 18 days depending upon the date in January that a particular well was sampled. As shown on Figure 11, PCE concentrations in soil gas generally rebounded but were significantly less during the 3-week shutdown period. Evaluation of the



performance of the SVE systems and their planned future operation will be reported separately in a report to be submitted to RWQCB.

## 5.2 FHP COLLECTION SYSTEM

FHP collection was initiated in late 1995 at groundwater monitoring well MW-1 and expanded when monitoring wells MW-2 and MW-3 were constructed in 1998 and converted to FHP collection wells (EKI, 1999). Clean Environment Equipment Model AP-4 airlift pumps are installed in each of these three wells. The pumps extract FHP and groundwater. The pump intakes are set at a depth of approximately 50 ft bgs, which is near the interface of FHP and groundwater in each of the wells. From 1995 to December 2002, approximately 5,300 gallons of FHP have been recovered from wells MW-1, MW-2, and MW-3. Recovered FHP and extracted groundwater are placed in 55-gallon drums and transported to an off-site, permitted facility for recycling. Tables 6 and 7 summarize the measured FHP thickness and FHP volumes collected from the wells over time. Figure 14 plots the cumulative FHP volume collected over time from wells MW-1, MW-2, and MW-3.

In September 2002, FHP collection wells PMW-16 and PMW-18, and soil vapor monitoring/FHP collection well PMW-17 were constructed inside Building A in an east-west trending line approximately 40 feet southeast of wells MW-1, MW-2, and MW-3 (Figure 3) to delineate the lateral extent of FHP on groundwater and to recover FHP. As discussed in Section 7.2.2.2, FHP was found in the new wells and the FHP collection system will be expanded to include wells PMW-16, PMW-17, and PMW-18.



## 6. PHYSICAL SETTING

This section summarizes the physical setting of the Site, and regional and local geologic and hydrogeologic conditions. This summary is based on findings from reports prepared by others, and lithologic and hydraulic data obtained as part of the RI and previous subsurface investigations at the Site.

### 6.1 SURFACE FEATURES

The Price Pfister facility occupies approximately 25 acres and is bounded by Paxton Street to the north, Louvre Street to the south, Sutter Avenue to the west, and Bradley Avenue to the east. Areas to the north, east, and west of the Site are primarily industrial and commercial; the area south of Louvre Street is residential.

Several buildings occupy the Site. The remaining area is surfaced with asphalt or concrete except for landscaping around Building O. As a consequence, no significant ecological habitats exist at the Site. Building P, the largest building on the premises, covers approximately 8.5 acres on the central portion of the Site (Figure 3). A parking lot is located north of Building P and extends along Paxton Street between Sutter Street and Bradley Avenue. Smaller buildings are located around the perimeter of the Site. An out-of-service railroad spur runs along the southern side of Building P. The Site is fenced and has several gated entrances.

The ground surface elevation at the northern boundary of the Site along Paxton Street is approximately 1,050 feet above mean sea level ("ft msl") at monitoring well A1. The ground surface elevation drops approximately 20 feet across the Site to the south. The elevation of monitoring well PMW-13, constructed in the southwest corner of the Site near Sutter Street and Louvre Street, is approximately 1,030 ft msl. The elevation difference between these two wells indicates a grade change of approximately 1.4 percent.

No surface water bodies exist at or adjacent to the Site. The nearest surface drainages are the Pacoima Wash and Pacoima Diversion Channel (Figure 6). The Pacoima Wash is located approximately 3,000 feet north and west of the Site. The Pacoima Diversion channel is located approximately 1.5 miles southwest of the Site.



## 6.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

The regional geologic and hydrogeologic conditions in the area where the Price Pfister property is located are described in Sections 6.2.1 and 6.2.2.

### 6.2.1 Regional Geology

The Site is located in the northeastern portion of the San Fernando Valley. The San Fernando Valley is an alluvium-filled basin approximately 25 miles long, which trends in an east-west direction between the Santa Monica Mountains to the South and the San Gabriel and Santa Susana Mountains to the north. The Verdugo Mountains bound the San Fernando Valley on the east.

The alluvial deposits of the San Fernando Valley are derived from the surrounding mountains. These deposits consist of thick accumulations of sand, gravel, silt, and clay, extending to a depth of at least 1,200 ft bgs within the deepest portions of the San Fernando Valley (U.S. EPA, 1993b). A review of lithologic logs for regional wells suggests that the depth of alluvial deposits may be on the order of 250 ft bgs beneath the Price Pfister property (Section 4.2.7).

The surface deposits near the Site are Holocene alluvium and colluvium that consist of generally coarse to very coarse and unconsolidated stream channel deposits (California Division of Mines and Geology, 1975). Sand and gravel comprise much of the alluvium east of the Pacoima Wash (Setmire, 1985).

The Site is located in a seismically active area with extensive faulting. The United States Geological Survey ("USGS") has mapped known and conjectural faults in the vicinity of the Site. The USGS (1981) indicates that surface expressions of the Verdugo Fault are apparent more than a mile southeast of the Site. Available data indicate that the fault trends in a northwest-southeast direction (Figure 6). The fault is concealed near the Price Pfister property so its precise location is not known. However, as discussed in Section 6.2.2, groundwater gradient information obtained in the vicinity of the Price Pfister property indicates that the Verdugo Fault and/or its splays likely run through and along the southern and western portions of the Site (Figure 6). The influences of the Verdugo Fault on groundwater movement in the eastern San Fernando Valley have been identified in several regional studies conducted by the State Water Rights Board (1962), California Division of Mines and Geology (1975) and the Watermaster of Upper Los Angeles River Area ("ULARA", 2002a).



Figure 6 identifies other possible concealed faults mapped near the Site, based on Bouger gravity and elevation profiles (USGS, 1981). The precise locations and relationship of these faults to the Verdugo Fault are not known. However, these faults also likely influence groundwater flow regime near the Site.

### 6.2.2 Regional Hydrogeology

Water bearing geologic units or the saturated zone of the San Fernando Valley include alluvial deposits and underlying bedrock (State Water Rights Board, 1962). The San Fernando Valley is in the Upper Los Angeles River Drainage Basin. This drainage basin is comprised of four hydrogeologic subbasins: the San Fernando subbasin, Sylmar subbasin, Verdugo subbasin, and Eagle Rock subbasin (California Division of Mines and Geology, 1975). The Price Pfister property is located in the northeastern portion of the San Fernando subbasin, which comprises approximately 90 percent of the Upper Los Angeles River Drainage Basin (Plate 1 in Appendix B). Groundwater flow velocities within the San Fernando subbasin have been estimated to range between several tens of feet per year to a few hundred feet per year (Setmire, 1985).

The San Fernando subbasin provides a portion of the water supply for the cities of Los Angeles, Burbank, and Glendale (ULARA, 2002a). The nearest municipal supply wells comprise the Tujunga well field, which is located approximately 3 miles south of the Site, across the reported trace of the Verdugo Fault, and, therefore, is not likely in the down-gradient direction of groundwater flow from the Price Pfister property. The San Fernando subbasin has five active spreading grounds where collected surface water is used to recharge groundwater (ULARA, 2000a). The nearest spreading grounds to the Price Pfister property are the Pacoima spreading grounds located west of the Pacoima Wash. The Pacoima spreading grounds are on the side of the Verdugo Fault opposite the Price Pfister property and are unlikely to affect the groundwater conditions near the Site.

Groundwater levels in the San Fernando subbasin fluctuate because of: (1) natural and induced recharge from surface water infiltration, (2) groundwater flow from the surrounding mountains, and (3) withdrawals from municipal supply and agricultural wells. Geological faulting in the region also influences groundwater levels.

Sharp declines in groundwater levels across short distances are observed in the eastern portion of the San Fernando Valley. These marked changes in groundwater levels reflect the influences of barriers to groundwater flow that exist within the subsurface. The groundwater barriers are likely the result of faulting that has created clay-filled shear and clay gouge zones that restrict groundwater flow (USGS, 1981). The influences of these



faults on the groundwater flow regime are evident in the southwestern portion of the Price Pfister property where groundwater levels decrease by approximately 16 feet over a lateral distance of 100 feet between monitoring wells MW-7 and MW-8.

The largest decline in groundwater levels (i.e., approximately 120 feet) observed near the Price Pfister property is in vicinity of the presumed trace of the Verdugo Fault west of the Site. Groundwater elevations along the Verdugo Fault are presumed to be on the order of 860 ft msl based upon groundwater levels measured in monitoring well PA-01 in 1998. In comparison, groundwater elevations in the central portion of the Price Pfister property are on the order of 980 ft msl.

In many cases, faults that act as groundwater barriers do not extend to ground surface or even to the top of the saturated zone. The faults are often concealed by the deposition of additional alluvial deposits. Groundwater cascades can occur at such faults whereby groundwater spills over the top of the faults. Groundwater cascades are characterized by abrupt changes in groundwater elevations across a fault zone. Faults also can create abrupt changes in the direction and velocity of groundwater flow. The influences of faults and the resulting complexity of groundwater flow in the eastern portion of the San Fernando Valley, where the Price Pfister property is located, are apparent on simulated groundwater elevation contour maps prepared by the ULARA Watermaster (2002b). These contour maps are included as Plates 9 and 10 in Appendix B.

## **6.3 LOCAL GEOLOGY AND HYDROGEOLOGY**

Geologic and hydrogeologic conditions at the Price Pfister property are described in Sections 6.3.1 and 6.3.2.

### **6.3.1 Local Geology**

Well-graded sandy gravels, gravelly sands, and silty sands were encountered beneath the Site to the maximum depth explored of approximately 110 ft bgs. Cobbles and boulders were encountered at various locations and depths throughout the Site. These materials correspond with alluvial deposits described in the geologic reports reviewed (Section 6.2.1).



### 6.3.2 Local Hydrogeology

Figures 15 and 16 provide illustrations of hydrogeologic conditions at the Site in plan- and cross-section views. These figures are based upon groundwater level measurements, and regional and local geologic information. As shown on these figures, faults appear to exist on the southern portion of the Price Pfister property and west of the Site. The presence of these faults is consistent with regional geologic and hydrogeologic information. The apparent influences of the faults on groundwater elevation, flow direction, and gradient near the Site are described below.

#### 6.3.2.1 Groundwater Elevation

Groundwater levels in on-Site monitoring wells were measured on several occasions between August 2002 and January 2003.

During the January 2003 monitoring event, the depth to groundwater measured beneath most of the Site ranged from approximately 53.48 to 62.82 ft bgs, which corresponded to elevations of 979.28 to 980.40 ft msl. The depth to groundwater measured along the Louvre Street side of the Site ranged from approximately 68.94 ft bgs to 72.35 ft bgs, which corresponded to elevations of 961.52 to 965.14 ft msl. Depth to groundwater measured in off-Site Filmore Street monitoring wells ranged from 64.30 to 67.54 ft bgs, which corresponded to an elevation of 962.29 to 964.14 ft msl. The sharp drop in groundwater levels observed near Louvre Street indicates the presence of groundwater barriers that may be associated with faulting (Section 6.2.2).

#### 6.3.2.2 Groundwater Flow Direction

Groundwater elevation contour maps were generated for the Site using groundwater level measurements made in August 2002, November 2002, December 2002, and January 2003, and are presented on figures included in Appendix B. The groundwater elevation contour maps indicate the complex and variable nature of groundwater flow at and near the Price Pfister property. The direction of groundwater flow beneath the majority of the Site can be generalized as being to the southeast. However, as shown on December 2002 and January 2003 groundwater elevation contour maps, the direction of groundwater flow changes to the southwest near Louvre Street. This change in flow direction occurs immediately down-gradient of presumed faults (Figure 15).

Groundwater elevation data from the single sampling event of all three monitoring wells at D&M Steel facility in 1990 indicate the presence of: (1) a 25 foot drop in groundwater



elevations across this facility, and (2) a northerly groundwater gradient (Figure 15). The apparent drop in groundwater elevations and potential change in the direction of groundwater flow may indicate the presence of an additional fault splay near the D&M Steel facility.

#### 6.3.2.3 Horizontal Groundwater Gradients

Horizontal groundwater gradients at and near the Price Pfister property were calculated from groundwater level measurements made in January 2003. These gradients were as follows:

- Approximately 0.001 ft/ft along northern Building P and Paxton Street
- Approximately 0.002 ft/ft south of Building P
- Approximately 0.004 ft/ft between Louvre and Filmore Streets

The changes in groundwater elevation, flow direction, and gradient along Louvre Street and Filmore Street are consistent with the presence of fault zones along the southern boundary of the Site, as shown on Figure 15.

#### 6.3.2.4 Vertical Groundwater Gradients

Monitoring well MW-5 is screened across the top of the groundwater surface (i.e., 37 to 67 ft bgs). Nearby well PMW-21B is screened approximately 50 feet below the groundwater surface (i.e., from 98.5 to 108.5 ft bgs) (Figure 15). Groundwater level measurements made on wells MW-5 and PMW-21B on 18 December 2002 and 6 January 2003 indicate the presence of an upward vertical gradient between the depths of the screened intervals of these wells. The magnitude of this vertical gradient ranged from approximately 0.002 ft/ft to 0.003 ft/ft and exceeds the horizontal groundwater gradient measured in this area. The presence of upward vertical gradients may indicate that a groundwater cascade exists along the faults identified near Louvre Street. The presence of such a feature and the resulting upward vertical gradients that exist up-gradient of such a feature will tend to limit downward migration of groundwater and any chemicals dissolved in groundwater in this portion of the Site.



## 7. INVESTIGATIVE FINDINGS

This section compiles information related to the distribution of chemicals at the Site and is based upon data obtained during the RI and previous investigations and the analytical results of quarterly groundwater sampling summarized on Figures 17 through 19. The findings based upon these data are discussed in the context of historical uses of the Site and chemical releases that may have taken place because of these uses. The primary areas of the Site where chemical handling occurred consist of the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area. Figure 4 depicts these areas on the Price Pfister property. Sections 7.1 through 7.4 describe their historical uses and sources of contamination at the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area that may require remedial actions. Section 7.5 addresses other Site locations.

Impacted soil at the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area that may indicate sources of contamination were estimated by comparing measured chemical concentrations with RBSLs calculated in Section 12 for direct contact with soil. RBSLs were calculated for all chemicals except petroleum hydrocarbons. The RBSL for petroleum hydrocarbons was not calculated uniquely for the Site because no published toxicity criteria are available for the heavier molecular weight petroleum hydrocarbons that comprise the oils released at the Site. The petroleum hydrocarbon RBSL is equivalent to the Soil Screening Level of 1,000 mg/kg established by RWQCB (1996) for petroleum hydrocarbons with carbon chain lengths of C<sub>13</sub> to C<sub>22</sub> in soil present at 20 to 150 feet above the groundwater surface. Petroleum hydrocarbon concentrations in soil at the Price Pfister property were compared with the RBSL of 1,000 mg/kg to identify potential sources of petroleum hydrocarbons that may necessitate remedial actions.

### 7.1 CENTRAL BUILDING P AREA

Building P is approximately 360,000 square feet ("ft<sup>2</sup>") and is constructed on a concrete slab that is surrounded by asphalt or concrete pavement. The "Central Building P Area" consists of the portion of the Building P interior that contained the plating line and wastewater treatment system ("WWTS"), barrel plating and rack strip operations, and degreasing and auto-polish area (Figure 3).



### 7.1.1 Central Building P Area Historical Operations

The main operations that took place in the Central Building P Area are as follows:

**Plating Line and WWTS:** The plating line and WWTS involved the electroplating of brass and zinc faucet parts and subsequent treatment of wastewater generated by these processes. The plating line consisted of thirty-seven above ground process tanks that ranged in volume from 415 to 9,500 gallons. The plating tanks held water rinses, and hexavalent chromium, nickel, copper, acid, and alkaline solutions.

The plating line began operating in approximately 1970 and was shutdown in 2002. Electroplating produced wastewater streams that contained metals, acids, or caustics and were treated in the WWTS. The WWTS also treated plating wastewater from the barrel plating line, wastewater from the auto-polish and rack strip areas, and oily wastewater generated in the machine shop in Building P and the Oil Staging Area. Treatment of the various wastewater streams involved oil-water separation, pH adjustment, precipitation, neutralization, cyanide destruction, hexavalent chromium reduction, flocculation, and filtration.

The WWTS consisted of twenty-two above ground process tanks and nine below ground sumps and clarifiers. The WWTS was subject to the State of California tiered permitting system or Permit-by-Rule ("PBR") promulgated under Section 25200 of the California Health and Safety Code ("HSC") and Section 67450 of Title 22 of the California Code of Regulations ("CCR"). Operation of the WWTS was discontinued with shutdown of the plating line. The WWTS was decommissioned in accordance with a closure plan (EKL, 2002a). Price Pfister removed waste liquid and sludge from tanks, sumps, and clarifiers, cleaned these vessels, and dismantled and disposed of equipment, piping, and appurtenances. Price Pfister is in the process of obtaining approval from LAFD, which is the Certified Unified Program Agency for Pacoima, that the WWTS has been properly closed.

**Barrel Plating Line and Rack Strip Area:** The barrel plating line and rack strip area was located south of the WWTS. The barrel plating line was used for electroplating of small faucet parts and consisted of forty above ground process tanks that ranged in volume from 85 to 660 gallons. The barrel line tanks held water rinses, and hexavalent chromium, nickel, copper, acid, and alkaline solutions. The rack strip area was used to clean racks that held parts for electroplating. The rack strip area had four above ground process tanks that ranged in volume from 600 to 4,000 gallons. The tanks in the rack strip area contained a water rinse, and acid and caustic solutions.



**Degreasing and Auto-Polish Area:** The degreasing and auto-polish area was situated between the WWTS and a machine shop that existed in Building P (Figure 3). Faucet parts were deburred, buffed, and polished by machine or by hand in the auto-polish area. Powder coating was also conducted in the auto-polish area from 1984 to 1998. Powder coating involved electrostatically spraying epoxy powder onto faucet parts and subsequently curing the parts in an oven to produce a smooth, hard coating on the fixtures. To ensure proper adhesion of the powder coating, oil film, grit, and polishing compound that may have resided on the faucet parts due to machining or subsequent finishing had to be cleaned off the parts before applying the powder coating. Similar cleaning was required before parts could be electroplated.

Faucet parts were cleaned in either the Baron vapor degreaser or one of the four Delta vapor degreasers located in the auto-polish area before applying powder coating or electroplating. The Baron vapor degreaser was a self-contained unit that sat on top of the 6-inch thick concrete slab in the Central Building P Area. The Delta vapor degreasers were also self-contained units that were placed over concrete vaults covered with grates that functioned as secondary containment systems. None of the degreasers had external tanks, reservoirs, or piping. Chlorinated solvent was delivered to the degreasers in 55-gallon drums or 200-gallon tote containers that were filled at the ASTs located on the north dock and, in later years, the Oil Staging Area.

PCE was the solvent used in the Baron vapor degreaser. The Baron vapor degreaser was installed in 1970 and removed from the Site in 1993. The Delta vapor degreasers were installed in 1984. PCE was used in the Delta vapor degreasers from 1984 to 1987. In 1987, 1,1,1-TCA replaced PCE, and 1,1,1-TCA was employed until approximately 1993 at which time two of the Delta vapor degreasers were taken out of service. From 1993 to approximately 1995, the remaining two Delta vapor degreasers were converted to use hydrochlorofluorocarbon-141b ("HCFC-141b"), also known as dichlorofluoroethane. In 1995, HCFC-141b was replaced with aqueous-based detergents. Aqueous-based detergents were used for degreasing from 1995 until manufacturing activities ceased in 2002. The Delta vapor degreasers have been removed from the Site.

Methylene chloride was employed from late 1986 to mid 1991 to remove or strip the powder coating from a faucet part if the coating did not meet manufacturing quality standards. The part was stripped so the powder coating could be properly reapplied. An acidic solution replaced methylene chloride as the stripping agent in 1992.



### 7.1.2 Nature and Extent of Chemicals in Soil at Central Building P Area

EKI collected and analyzed soil and soil gas samples in the Central Building P Area between March 2002 and January 2003. These sampling activities are described in Section 4. Soil sample analytical results are summarized in Tables 8 through 13 and are shown on Figures 20 through 30. Soil gas sample analytical results are summarized in Tables 14 and 15 and are shown on Figures 7 through 11.

#### 7.1.2.1 VOCs in Soil at Central Building P Area

PCE is the primary VOC detected in soil at the Central Building P Area. Review of analytical results in Table 8 indicates the highest PCE concentration is detected in shallow soil at boring PSVE-2 located approximately 40 feet north of the former Baron vapor degreaser (Figure 28). PCE was detected at 188 mg/kg in a soil sample collected from this boring at a depth of 1.5 to 2.5 ft bgs. Figures 28 and 29 depict the lateral and vertical extents to which soil beneath the Central Building P Area may contain PCE greater than the direct contact RBSL of 0.18 mg/kg.

Higher PCE concentrations in soil gas samples coincide with the former location of the Baron vapor degreaser and near boring PSVE-2 where PCE was measured at 188 mg/kg at 1.5 to 2.5 ft bgs. PCE concentrations in soil gas generally increase with depth and decrease with lateral distance from boring PSVE-2 and the former location of the Baron vapor degreaser (Figures 8 and 11). Volatilization of PCE in shallow soil near boring PSVE-2 or the former location of the Baron vapor degreaser may account for the observed distribution of PCE in soil gas beneath the Central Building P Area.

It is possible that PCE in soil gas originated from relatively small chlorinated solvent releases to soil and that PCE vapor migrated downward through the unsaturated zone because PCE vapor is heavier than air. Verschueren (1983) reports that PCE vapor is almost six times as dense as air.

The phenomenon of VOCs migrating downward through the unsaturated zone is referred to as density driven flow and has been described by U.S. EPA (1993, 1991), Hartman (1998), Thomson et. al. (1997), Mendoza and McAlary (1990), and Falta, et. al. (1989). As discussed in Section 9.1.1.3, density driven flow of PCE in soil gas can explain PCE impacts to groundwater at the Site that are not associated with chemical releases at Holchem/Brenntag or other nearby facilities. PCE vapor sank by the force of gravity, came to rest on top of the saturated zone, and dissolved into groundwater.



#### 7.1.2.2 Non-VOCs in Soil at Central Building P Area

A localized release of heavier molecular weight petroleum hydrocarbons characteristic of oils appears to have occurred near the clarifier within the plating line and WWTS. Petroleum hydrocarbons with carbon chain lengths of C<sub>16</sub> to C<sub>34</sub> were detected in soil samples collected from borings W25 and W26 at concentrations greater than the RBSL of 1,000 mg/kg. The maximum petroleum hydrocarbon concentration measured near the clarifier was 71,100 mg/kg in a soil sample from boring W25 at 1.5 to 2.5 ft bgs. Figures 28 and 30 depict the lateral and vertical extents to which petroleum hydrocarbons in soil near the clarifier have been characterized.

Hexavalent chromium was detected only sporadically in soil and limited to samples collected within the plating line and WWTS. No discernable source of hexavalent chromium in soil within the plating line and WWTS is identifiable based on the data. Hexavalent chromium was not detected in soil samples at concentrations greater than the direct contact RBSL of 270 mg/kg. As shown on Figure 26, hexavalent chromium concentrations in samples from these borings that are greater than the RBSL ranged from 2.67 mg/kg in sample W12 at 3 to 4 ft bgs, to 22.8 mg/kg in sample W17 at 22 to 23 ft bgs.

Cyanide was detected in 4 of 98 soil samples collected from the Central Building P Area that were analyzed for cyanide (Table 10). Cyanide in soil was found only within the plating line and WWTS. Detected concentrations of cyanide ranged from 0.14 mg/kg in sample W9 at 10 to 11 ft bgs, to 0.58 mg/kg in sample W5 at 1.5 to 2.5 ft bgs. The range of detected cyanide concentrations is less than the direct contact RBSL of 4,200 mg/kg.

The measured pH of soil samples collected from the Central Building P Area ranged from 7.3 to 11. No SVOCs were detected in soil samples obtained from the Central Building P Area and analyzed for SVOCs (Table 11 and Figure 23 and 27).

#### 7.1.3 **Nature and Extent of Chemicals in Groundwater at Central Building P Area**

Groundwater sampling at the Central Building P Area was initiated in December 2002 with construction of monitoring wells PMW-23 through PMW-26. Groundwater sample analytical results are summarized in Tables 16 through 18 and are shown on Figures 17 through 19.



#### 7.1.3.1 VOCs in Groundwater at Central Building P Area

PCE was measured in each of the four monitoring wells constructed at the Central Building P Area. Detected PCE concentrations ranged from 185 µg/L in well PMW-26 to 1,475 µg/L in well PMW-23. PCE in the monitoring wells is likely due to PCE vapor sinking through the unsaturated zone at the Central Building P Area and PCE that migrated in groundwater from chemical releases at the Holchem/Brenntag facility. Releases at the Holchem/Brenntag facility are discussed in Section 3.4.1.

#### 7.1.3.2 Non-VOCs in Groundwater at Central Building P Area

Hexavalent chromium is the single non-VOC that appears to have affected groundwater at the Central Building P Area. Hexavalent chromium was detected at 35 µg/L in a groundwater sample collected from monitoring well PMW-26 in December 2002. Hexavalent chromium also has been measured occasionally in groundwater samples obtained from monitoring wells MW-4, MW-6, MW-7, MW-8, PMW-9, and PMW-13 at concentrations ranging from 5 to 17 µg/L. These wells are in the down-gradient direction of groundwater flow from the Central Building P Area. As discussed in Section 9.4, hexavalent chromium is the only metal that is prone to leaching given the soil conditions at the Site. The analytical results of groundwater samples for other metals confirm this finding. No metals besides hexavalent chromium have been found in groundwater at the Site at concentrations that are greater than relevant Maximum Contaminant Levels (“MCLs”) or other criteria promulgated or developed for protection of drinking water.

## 7.2 BUILDING A AREA

The “Building A Area,” is located along Louvre Street approximately 150 feet south of Building P, as shown on Figure 4. Building A is constructed on a concrete slab and the area surrounding the building is paved with asphalt or concrete.

### 7.2.1 Building A Area Historical Operations

Fifty-two screw machines with drip pans were located inside Building A. As their name implies, the machines produced screws and nuts from brass stock. Metalworking fluids were used in the machines to cool and lubricate the part being shaped or cut and to flush the metal chips or swarf from the part being machined. Metalworking fluids are often described as coolants, or machining or cutting oils because of the functions they serve. Price Pfister also referred to the cutting oil used in the screw machines as “pale oil”



because pale oil was used for this purpose. Pale oil derives its name from the fact that the oil is straw or pale yellow in color.

A conveyor placed in a concrete trench moved metal chips and entrained cutting oil to a chip wringer. The chip wringer separated the chips from the cutting oil. Separated chips were placed into roll-off bins for transportation to an off-Site metal reclamation facility. Separated cutting oil was returned to the screw machines. Screw machining ceased at the Site in 2002 and equipment in Building A has been removed.

A second concrete trench was situated next to the trench that contained the chip conveyor. Piping placed in the second trench recirculated cutting oil to the screw machines from two 4,000-gallon USTs located outside on the north end of Building A. Cutting oil was stored in the USTs from 1954 until 1984 when a 4,000-gallon AST was installed outside Building A that replaced the USTs. The two 4,000-gallon cutting oil USTs were removed in 1984 with RWQCB oversight. A release of cutting oil was discovered in this area during the removal of USTs.

Parts machined in Building A were cleaned in a parts washer with an aqueous-based detergent. The parts washer was located in the western portion of Building A (Figure 3). Wastewater from the parts washer was discharged to a concrete trench that drained into a below ground clarifier at the south end of Building A. Wastewater exited the clarifier and entered the Los Angeles municipal sewer system. Discharge of this wastewater to the sewer was stopped in 1991 when the wastewater began to be pre-treated in the Oil Staging Area, as discussed in Section 7.3.1. The clarifier was filled and covered with concrete.

Review of LAFD files found a handwritten note on a blueprint of Building A, dated 31 January 1955, with the word "Trichlor" at the approximate location of the former wastewater clarifier. A map dated 1956 indicates that a "Dip-Type" Baron degreaser was located in Building A, but the location is not shown on the map. Both of these documents predate Price Pfister's occupancy of the Site that began in 1983. Price Pfister has no record that degreasing with chlorinated solvents was carried out in Building A.

The western portion of Building A housed a die casting operation from approximately 1956 until 1991. The operation consisted of eight die casting machines. Five of the machines were used for zinc die casting and the remaining three machines were used for aluminum and brass die casting. Each zinc die casting machine had automatic injection equipment that contained a furnace that melted the zinc and a hydraulic piston that forced the melted zinc into the mold or die (Price Pfister, 1977). Aluminum and brass die



casting was performed with ladle pouring machines because aluminum and brass melted at a higher temperatures or formed deposits that would otherwise damage automatic injection equipment.

Concrete trenches beneath the die casting machines circulated non-contact cooling water through the die casting machines. Non-contact cooling water discharged to a concrete sump at the western end of Building A. The water was circulated from the sump to a cooling tower on the roof of Building A. Blowdown from the cooling tower was discharged to the sewer system. Other equipment used in the die casting operation included an above ground die cleaning tank and an electric furnace to melt zinc. Electrical transformers provided power to the furnace. The dielectric fluid in the transformers contained PCBs. The transformers and dielectric fluid were removed from the Site in 1991 when the die casting operation was decommissioned.

### **7.2.2 Nature and Extent of Chemicals in Soil at Building A Area**

Soil and soil gas sampling has been conducted at the Building A Area on several occasions. These sampling activities are described in Section 4. Soil sample analytical results are summarized in Tables 8 through 13 and are shown on Figures 31 through 34. Soil gas sample analytical results are summarized in Tables 14 through 15 and are shown on Figures 7 through 11.

#### **7.2.2.1 VOCs in Soil at Building A Area**

PCE, bromomethane, and other chlorinated VOCs are found sporadically in soil samples that contain petroleum hydrocarbons. Section 7.2.2.2 describes the locations where petroleum hydrocarbons have been detected in soil at the Building A Area. PCE and bromomethane have been measured at maximum concentrations of 1.69 and 1.1 mg/kg, respectively, in soil samples that also contained petroleum hydrocarbons (Table 8). Soil gas analytical results in the Building A Area were low. Detected VOCs in soil gas either reflect: (1) volatilization and migration of VOCs from the unsaturated zone at the Central Building P Area or Oil Staging Area, or (2) volatilization of VOCs from the saturated zone due to VOCs that have migrated in groundwater from the Central Building P Area and Holchem/Brenntag facility.

It is unlikely that the VOCs detected with petroleum hydrocarbons in soil are the result of releases at the Building A Area. No significant chlorinated solvent use is known to have occurred at Building A. Further, the VOC concentrations are relatively low and do not resemble a solvent release. The VOCs are believed to have sorbed or partitioned into the



petroleum hydrocarbons from soil gas. Section 9.1.1.1 describes the mechanism governing the tendency of VOCs to partition into petroleum hydrocarbons.

#### 7.2.2.2 Non-VOCs in Soil at Building A Area

Petroleum hydrocarbons have been discovered in soil at several places at Building A where petroleum hydrocarbons were historically stored or handled. As shown on Figure 32, petroleum hydrocarbons have been detected at concentrations greater than the RBSL of 1,000 mg/kg beneath locations at the Building A Area, including the former cutting oil USTs, the concrete trenches that contained the chip conveyor and cutting oil piping, the parts washer and the former clarifier into which wastewater from the parts washer discharged, and a portion of the trenches that contained non-contact cooling water piping for the die casting machines.

The plan and cross-section views of environmental conditions at the Building A Area (Figures 35 and 36) illustrate that petroleum hydrocarbons have penetrated to a depths ranging between 40 to 55 ft bgs in soil near the former cutting oil USTs, the trench that contained the chip conveyor, and the former wastewater clarifier. Petroleum hydrocarbons also have been detected in soil immediately beneath the die casting machine trenches and to a depth of 24 ft bgs in soil samples collected from boring PMW-16 north of these trenches (Figure 32). Petroleum hydrocarbons also are present in soil to a depth of 24 ft bgs beneath the former parts washer. Petroleum hydrocarbon releases at the former cutting oil UST have resulted in FHP on the groundwater surface. FHP is being collected as described in Section 5.2.

No SVOCs were detected in soil samples obtained from the Building A Area (Table 11 and Figure 34). No PCBs were found in the concrete slab of Building A or soil underlying the slab (Table 12). Metals in soil are not a concern at the Building A Area. Hexavalent chromium was measured at concentrations ranging from 1.01 to 4.22 mg/kg (Table 10), which are less than the direct contact RBSL of 270 mg/kg. Other metal concentrations are consistent with those naturally occurring in soil and are less than direct contact RBSLs.

#### **7.2.3 Nature and Extent of Chemicals in Groundwater at Building A Area**

Groundwater has been sampled at the Building A Area since 1988 with construction of monitoring well MW-1. In 1998 and 2000, monitoring wells MW-2 through MW-8 were constructed to allow monitoring of the extent of FHP on the groundwater surface. Groundwater monitoring wells PMW-16 and PMW-18, and soil vapor/groundwater



monitoring well PMW-17 were constructed and sampled by EKI in 2002 as part of the RI. Groundwater sample analytical results are summarized in Tables 16 through 18 and are shown on Figures 17 through 19.

#### 7.2.3.1 VOCs in Groundwater at Building A Area

Chlorinated VOCs are present in groundwater at the Building A Area. Maximum detected concentrations of VOCs include PCE at 3,213 µg/L, 1,1,1-TCA at 29.5 µg/L, TCE at 6.31 µg/L, cis-1,2-DCE at 1.83 µg/L, and 1,1-DCE at 25.4 µg/L. As discussed in Section 7.2.2.1, a solvent release capable of contaminating groundwater is not believed to have occurred at the Building A Area. PCE and other VOCs detected in groundwater at the Building A Area likely migrated from locations in an up-gradient direction of groundwater flow.

#### 7.2.3.2 Non-VOCs in Groundwater at Building A Area

Five groundwater monitoring wells (i.e., MW-4 through MW-8) and one combination soil vapor/groundwater monitoring well (i.e., PMW-14) are constructed outside of the lateral extent of FHP on groundwater beneath the former cutting oil tanks. Five monitoring wells (MW-1, MW-2, MW-3, PMW-16, and PMW-18) and one soil vapor/groundwater monitoring well (i.e., PMW-17) are constructed within the area where FHP has been discovered on groundwater. The extent of FHP has been defined by these wells, as shown on Figure 35. FHP is currently collected from groundwater monitoring wells MW-1, MW-2, and MW-3. Wells PMW-16, PMW-17, and PMW-18 will be added to the FHP collection system since free product was found in these wells.

The small extent of FHP results from the limited mobility of cutting or pale oil in groundwater. The limited mobility of FHP is due to the heavier molecular weight petroleum hydrocarbons that comprise the oil. Petroleum hydrocarbons in pale oil used by Price Pfister have carbon chain lengths of C<sub>16</sub> to C<sub>34</sub>, which are consistent with the types of petroleum hydrocarbons found in lubricants and have a high viscosity and low solubility in water. Consequently, FHP at the Building A Area tends to be immobile and does not move as a separate phase or as dissolved constituents in groundwater.

Analysis of groundwater samples collected from wells MW-4 through MW-8 and PMW-14 support the finding that no significant concentrations of dissolved petroleum hydrocarbons in groundwater are emanating from the location where FHP is present. Dissolved total extractable petroleum hydrocarbons ("TEPH") range from non-detectable concentrations at the analytical method reporting limit of 50 µg/L in groundwater



samples collected from wells MW-4, MW-6, MW-7, MW-8, and PMW-14 to 189 µg/L in groundwater samples collected from well MW-5.

Total volatile petroleum hydrocarbons ("TVPH") have also been measured in groundwater samples collected from wells MW-5, MW-7, and MW-8, and monitoring wells constructed elsewhere at the Site. Discussion with representatives of the analytical laboratory indicates that the compounds measured as TVPH elute from the gas chromatograph within the boiling range of petroleum hydrocarbons with carbon chain lengths of C<sub>6</sub> to C<sub>11</sub>. Analytical laboratory representatives believe that compounds reported as TVPH are PCE and other VOCs that have been confirmed separately by U.S. EPA Method 8260B to be in groundwater at the Site (personal communication, 2002). For this reason, EKI proposes that analysis of groundwater samples for TVPH be discontinued beginning with the groundwater sampling event in the first quarter of 2003.

Samples of FHP were obtained from wells MW-1, MW-2, and MW-3 in March 2002 and analyzed for VOCs and metals. PCE, 1,1,1-TCA, and bromomethane were measured in the FHP at maximum concentrations of 310, 54, and 31 mg/kg, respectively (Table 19). Copper, total chromium, lead, and zinc have been detected in collected FHP at maximum concentrations of 26, 2.4, 13, and 2.5 mg/kg, respectively (Table 20).

It is unlikely that VOCs detected in the FHP were released with the petroleum hydrocarbons. No significant chlorinated solvent use occurred in Building A. Similar to soil samples collected from the Building A Area that have both VOCs and petroleum hydrocarbons, VOCs in groundwater would also display an affinity for petroleum hydrocarbons and tend to concentrate in the FHP. Copper, total chromium, lead, and zinc detected in the FHP are likely due to tiny bits of metal chips or swarf that were entrained in used cutting oils transferred from the screw machines to the cutting oil USTs.

Neither the VOCs nor the metals in the FHP represent a significant human health or environmental concern. VOCs are not prone to leach to groundwater or volatilize to soil gas once they have been sequestered into FHP. Copper, total chromium, lead, and zinc are associated with metal swarf and are insoluble in groundwater.



### 7.3 OIL STAGING AREA

The "Oil Staging Area," is located east of Building P and south of Building L. The Oil Staging Area consists of a concrete paved area that is sheltered by a canopy. Asphalt or concrete pavement also surrounds the Oil Staging Area.

#### 7.3.1 Oil Staging Area Historical Operations

As shown on Figure 3, four 1,000-gallon USTs were located in this portion of the Site before the Oil Staging Area was built. Hydraulic oil was held in two of the USTs, and linseed oil, and used lubricating and cutting oils were held in the other two USTs. The USTs were removed in 1984 and the Oil Staging Area was constructed in 1988.

Two separate processes subject to PBR were conducted at the Oil Staging Area. One process was the Drum Rinsing Unit, which involved the rinsing and cleaning of drums. The other process was the Oil Staging Unit, which entailed pre-treating oily wastewater in the Oil Staging Unit before conveying the wastewater to the WWTS for final treatment and discharge to the municipal sewer system. Under PBR, the Drum Rinsing Unit was considered a Conditionally Exempt Unit and the Oil Staging Unit was considered a Conditionally Authorized Unit. Both units have been decommissioned in accordance with a closure plan (EKI, 2002a) and Price Pfister is in the process of obtaining approval from the LAFD that the closure is complete.

Empty product drums and containers were rinsed in the Drum Rinsing Unit and the resulting wastewater was discharged to a concrete containment sump prior to pre-treatment in the Oil Staging Unit. Residual product was removed from the drums and containers so the cleaned drums and containers could be reused by Price Pfister or sent to an off-Site, permitted waste management facility. Wastewater generated by steam cleaning drums and containers was combined with wastewater from the parts washer in Building A and pre-treated by the Oil Staging Unit.

The Oil Staging Unit consisted of an oil/water separator, two above ground holding tanks, one above ground treatment tank, and the same containment sump used by the Drum Rinsing Unit. The Oil Staging Unit removed oil floating or emulsified in wastewater by gravity separation, pH adjustment, flocculation, and filtration. Clarified wastewater was sent to the WWTS for final treatment and discharge to the municipal sewer system.



The west side of the Oil Staging Area was also used for product storage (Figure 3). Two 1,300-gallon ASTs that held PCE and 1,1,1-TCA were relocated from the south loading dock and installed within a bermed area in the Oil Staging Area in 1988. The berm surrounding the area still remains and is 6 inches high and made of concrete. The floor of the bermed area is epoxy coated and a sump exists inside the bermed area that served to collect liquids in the event of releases or spills. The ASTs were removed from the bermed storage area in 1994 after stopping use of PCE and 1,1,1-TCA at the Site.

### **7.3.2 Nature and Extent of Chemicals in Soil at Oil Staging Area**

Soil and soil gas sampling has been conducted at the Oil Staging Area on several occasions. These sampling activities are described in Section 4. Soil sample analytical results are summarized in Tables 8 through 13 and are shown on Figures 37 through 42. Soil gas sample analytical results are summarized in Tables 14 and 15 and are shown on Figures 7 through 11.

#### **7.3.2.1 VOCs in Soil at Oil Staging Area**

PCE is the primary COC detected in soil and soil gas in the Oil Staging Area. PCE concentrations greater than the direct contact RBSL of 0.18 mg/kg were found in soil beneath the containment sump where drums and containers were steam cleaned. PCE at 12.5 and 244 mg/kg was measured in soil samples obtained at approximately 10 and 20 ft bgs, respectively, from the boring for monitoring well PMW-22. PCE also has been detected at 7 and 7.2 mg/kg in soil samples collected at 10 and 15 ft bgs, respectively, from boring SB-2, and 35.6, 17.3, and 0.338 mg/kg in soil samples collected at 20, 30, and 45.5 ft bgs, respectively, from boring SB-11. Figures 41 and 42 depict the location of soil at the Oil Staging Area that may be a source of PCE.

Higher PCE concentrations in soil gas coincide with the general location of the containment sump and soil potentially impacted with PCE at concentrations greater than the direct contact RBSL. PCE concentrations in soil gas increase with depth and decrease with distance away from the sump (Figure 8). The distribution of PCE in soil gas indicates that PCE volatilized from chlorinated solvent released to the subsurface from the sump and subsequently migrated by density driven flow.

Before start-up of the SVE systems, the maximum PCE concentration in soil gas at the Oil Staging Area was detected in the third screen interval (i.e., between 40 and 54 ft bgs) of soil vapor monitoring well SVMW-201. Soil gas samples collected at this depth interval from this well contained 22,600 µg/L of PCE in July 2002 before the SVE



system began operating. As of December 2002, the SVE system at the Oil Staging Area had reduced PCE to 213 µg/L between 40 and 54 ft bgs in well SVMW-201.

PCE concentrations in soil gas ranging from 9,100 to 13,500 µg/L still remain in the unsaturated zone at 25 to 39 ft bgs beneath the containment sump. However, these PCE concentrations are also expected to decline with continued removal of chlorinated solvent from soil by the SVE system. Comparison of PCE soil gas concentration contours before SVE system start-up (Figure 8) and after approximately three months of SVE system operation (Figure 10) demonstrates that both the lateral and vertical extents of PCE in soil gas at the Oil Staging Area have been substantially reduced.

#### 7.3.2.2 Non-VOCs in Soil at Oil Staging Area

Soil samples collected when the USTs were removed in 1984 contained petroleum hydrocarbons at concentrations greater than the RBSL of 1,000 mg/kg. Although the analytical results did not specify carbon chain lengths, the petroleum hydrocarbons were presumably heavier molecular weight compounds associated with the hydraulic and linseed oils held in the USTs. It is unclear from review of Site records whether this impacted soil was excavated and disposed prior to filling the UST excavation. Minor quantities of petroleum hydrocarbons may have been released to the subsurface from the containment sump. Soil sample PMW-22 collected at 19.5 to 20 ft bgs had 2,820 mg/kg of TEPH (Table 9), which is greater than the RBSL of 1,000 mg/kg. Detected petroleum hydrocarbon concentrations in other soil samples collected beneath the sump were less than the RBSL. Petroleum hydrocarbons found in soil sample PMW-22 at 19.5 to 20 ft bgs do not appear to be leaching to groundwater. The underlying soil sample PMW-22 obtained at 29.5 to 30 ft bgs did not contain petroleum hydrocarbons greater than the analytical method reporting limit of 10 mg/kg. Further, no petroleum hydrocarbons have been detected in groundwater samples collected from monitoring wells PMW-11 and PMW-22 constructed at the Oil Staging Area, as summarized in Section 7.3.3.2.

No SVOCs or hexavalent chromium were detected in soil samples obtained from the Oil Staging Area and analyzed for these COCs (Tables 10 and 11). Metals also do not appear to be a concern at the Oil Staging Area. Metals concentrations in soil are consistent with those naturally occurring in soil and are less than direct contact RBSLs.



### 7.3.3 Nature and Extent of Chemicals in Groundwater at Oil Staging Area

Monitoring wells PMW-11 and PMW-22 were constructed in the Oil Staging Area as part of the RI. Groundwater analytical results for these wells are summarized in Tables 16 through 18 and are shown on Figures 17 through 19.

#### 7.3.3.1 VOCs in Groundwater at Oil Staging Area

The maximum concentration of PCE detected in groundwater at the Oil Staging Area was 1,320 µg/L in groundwater samples collected from monitoring well PMW-11 in August 2002. Sampling conducted in January 2003 showed PCE in groundwater samples collected from well PMW-11 had declined to 395 µg/L. Sources of PCE in groundwater at the Oil Staging Area are believed to be PCE released at the Holchem/Brenntag facility that migrated in groundwater to the Price Pfister property, and PCE vapor that migrated from impacted soil beneath the concrete containment sump by density driven flow and subsequently dissolved into groundwater. Available data compiled for the SVE system operating at the Oil Staging Area indicates the SVE system has substantially removed PCE vapor that migrated to the saturated zone at this area.

#### 7.3.3.2 Absence of Non-VOCs in Groundwater at Oil Staging Area

Petroleum hydrocarbons do not appear to have affected groundwater in the Oil Staging Area. No TEPH has been detected in groundwater samples and compounds reported as TVPH are believed to be PCE and other VOCs that are present in groundwater. Interferences caused by VOCs on TVPH analysis are described in Section 7.2.3.2. Dissolved metal concentrations in groundwater samples collected from wells PMW-11 and PMW-22 are less than promulgated MCLs for drinking water and are consistent with dissolved metal concentrations detected in groundwater samples collected from other monitoring wells constructed at the Site. The low metal concentrations in groundwater are indicative of naturally occurring conditions and do not represent impacts from a release.

## 7.4 BUILDING L AREA

The "Building L Area," is located along Bradley Avenue, approximately 60 feet east of Building P, as shown on Figure 4. The area is covered by Buildings L and X, and asphalt or concrete pavement. Potential environmental concerns associated with the Building L area are not associated with former operations in Building L, but instead are based on the



use of this area before Building L was constructed and asphalt or concrete pavement was installed.

#### **7.4.1 Building L Area Historical Operations**

Building L was constructed sometime between 1976 and 1977 to support the foundry operating in the eastern portion of Building P, which is discussed in Section 7.5. Building L was used to store materials for the foundry and contained a ceramic bonding unit and metal reclamation equipment. In 1998, the ceramic bonding unit and metal reclamation equipment were removed and a concrete vault in which equipment had been placed was cleaned, filled, and covered with concrete. Building L continued to be used for material storage until 2002.

#### **7.4.2 Nature and Extent of Chemicals in Soil at Building L Area**

EKI performed sampling in March 2002 and found discolored casting sands in shallow soil. An additional investigation was conducted in August 2002 to delineate the area containing discolored sands. The additional investigation involved excavating 8 exploratory trenches to 4 ft bgs and completing 34 borings to 4 ft bgs. Figure 3 depicts exploratory trench and boring locations at the Building L Area. Analytical results of soil samples collected from these exploratory trenches and borings are summarized in Tables 8 through 13 and shown on Figures 43 through 46.

Several of the exploratory trenches and borings revealed dark gray to black sands with minor amounts of brown sand immediately beneath the concrete paving. These discolored sands are collectively referred to as "black sand." Laboratory analysis of the black sand indicates that the sand often contains metals at concentrations that indicate it has been used as casting sand.

The thickness of black sand ranges from approximately 1 inch in several trenches or borings to a maximum of approximately 18 inches in trench T-8. Figures 47 and 48 depict the area believed to contain black sand and soil with elevated metals or other COCs. As summarized in Tables 8 through 10, soil samples collected beneath the impacted media do not contain metals or other COCs at concentrations greater than direct contact RBSLs. Although no borings have been completed within Building P, along Bradley Avenue, or on the parcel south of Building L, it is unlikely that casting sands would have been deposited at these locations because the present surface features existed throughout the time the foundry operated at the Site.



#### 7.4.2.1 VOCs in Soil at Building L Area

PCE has been measured at concentrations greater than the direct contact RBSL in black sand samples. As shown on Figure 43, PCE was detected at 179 mg/kg in black sand samples collected from trench T-8. PCE has also been detected in soil samples from boring L20 at 4.45 mg/kg, boring L27 at 5.34 mg/kg, and trench T-3 at 10.2 mg/kg (Figure 43).

The release of chlorinated solvents to soil at the Building L Area appears to be minor. Soil gas samples collected from the first screen interval (i.e., between 10 and 24 ft bgs) in soil vapor/groundwater monitoring wells PMW-12 and SVMW-213 contained 950 and 200 µg/L of PCE in July 2002 before the SVE systems began operating. Well PMW-12 is constructed near trench T-8 where the highest concentration of PCE in soil at the Building L Area was detected.

PCE concentrations were greater in soil vapor monitoring wells constructed near the suspected point of release at the Oil Staging Area than at the Building L Area. PCE detected in soil gas samples from wells PMW-12 and SVMW-213 at the Building L Area could be due almost entirely to PCE in soil gas migrating from the Oil Staging Area (Figure 8).

#### 7.4.2.2 Non-VOCs in Soil at Building L Area

As shown on Figure 45, lead has been measured at concentrations in the black sand that are greater than the direct contact RBSL of 740 mg/kg. The extent of black sand and soil containing lead concentrations greater than the RBSL appears to be limited to a 1- to 18-inch layer immediately below the existing pavement.

Metal concentrations in soil at the Building L Area were also compared to Total Threshold Limit Concentrations ("TTLCs") promulgated in Title 22 of the CCR and additional requirements promulgated in HSC §25157.8 even though criteria for definition of a hazardous waste are not relevant to in-place soils that will not be removed (U.S. EPA, 1998a). The numerical values of some TTLCs or HSC §25157.8 requirements are lower than direct contact RBSLs established for some COCs (e.g., copper in soil) because human health risks associated with contacting impacted soil are reduced by cover materials that are currently in-place at the Price Pfister property and will exist in the future. Although known concentrations of metals in soil greater than TTLCs or HSC §25157.8 requirements may pose low human health hazards under these circumstances, the detected metal concentrations were compared to TTLCs and



HSC §25157.8 requirements because such soil, if excavated, may have to be managed as hazardous waste.

Black sand found at two locations (e.g., samples from trench T-8 and boring L-32) contained petroleum hydrocarbons at concentrations greater than the Site-specific RBSL of 1,000 mg/kg. Petroleum hydrocarbons were measured at a maximum concentration of 14,000 mg/kg in black sand collected at a depth of 0.5 to 1 ft bgs from trench T-8. No petroleum hydrocarbons were detected in soil samples collected beneath 1 ft bgs in trench T-8 (Table 9).

SVOCs are present in black sand sporadically and at low concentrations. SVOCs detected above analytical method reporting limits were chrysene, phenanthrene, and pyrene. Maximum concentrations of chrysene, phenanthrene, and pyrene measured in black sand are 0.0693, 0.0999, and 0.0973 mg/kg, respectively (Table 11). These maximum SVOCs concentrations are less than the direct contact RBSLs of 14, 37,000, and 4,300 mg/kg for chrysene, phenanthrene, and pyrene.

#### **7.4.3 Nature and Extent of Chemicals in Groundwater at Building L Area**

Monitoring well PMW-12 was constructed in the Building L Area as part of the RI. Groundwater analytical results for this well are summarized in Tables 16 through 18 and are shown on Figures 17 through 19.

##### **7.4.3.1 VOCs in Groundwater at Building L Area**

PCE has been detected at maximum concentration of 59.4 µg/L in groundwater samples collected from monitoring well PMW-12. PCE is likely due to density driven flow of PCE vapor in soil gas from the Oil Staging Area that has subsequently dissolved in groundwater. The physical process of density driven flow is discussed further in Section 9.1.1.3.

##### **7.4.3.2 Absence of Non-VOCs in Groundwater at Building L Area**

No petroleum hydrocarbons have been detected in groundwater samples collected from monitoring well PMW-12. Dissolved metal concentrations in groundwater samples collected from well PMW-12 are less than MCLs and are consistent with naturally occurring metal concentrations detected in groundwater samples collected from other monitoring wells constructed at the Site. SVOCs are generally immobile in the environment and groundwater samples were not tested for SVOCs.



## 7.5 OTHER SITE LOCATIONS

The phrase “other Site locations” refers to portions of the Site not included in the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area. Chemical use was limited in the other Site locations, and investigative findings do not indicate that significant chemical releases occurred in these areas. The locations of sample collection are shown on Figures 49 through 52 and sample analytical results are summarized in Tables 8 through 13. Except for sample SB-3 collected at 5 ft bgs near a sump inside Building X that contained 7,200 mg/kg of petroleum hydrocarbons (Section 7.4), no chemicals have been detected in soil at other Site locations at concentrations greater than direct contact RBSLs. The findings of the RI and previous investigations are sufficient to confirm that such impact to soil in sample SB-3 is minor and does not currently pose a risk to human health or the environment because the impacted soil is contained beneath Building X.

**Building B:** Building B is located near Louvre Street (Figure 3) in the southwest corner of the Site. Price Pfister conducted plastic injection molding in Building B. Plastics used in this process consisted mostly of polyacetal, polyvinyl chloride, nylon, polypropylene, and polyacrylic. Building B housed plastic injection molding machines, mills, lathes, grinders, a welding area, and a parts washer with petroleum naphtha. A drain system and wastewater clarifier were removed from the building in 1992. Floor trenches, which contained closed loop cooling water piping associated with manufacturing equipment, were also present in the building.

A 1,200-gallon UST that held a sulfur cutting oil was removed from a location north of Building B under RWQCB supervision in July 1984. The UST was installed in 1958 and its use was stopped in the early 1970s because sulfur cutting oil was no longer needed in manufacturing operations conducted at the Site.

**Building D:** Building D is constructed in the southwest corner of the Site (Figure 3) and was used as a warehouse for finished products.

**Building E:** Building E is south of Building P and north of Building B (Figure 3). Building E was used for receiving and storing drums of chemicals that arrived at the Price Pfister property.



1949 and 1952. Price Pfister used Building J for research and development. Building J contained offices, a laboratory, and machine shop. An underground water tank exists in the building. This tank held water that was circulated through faucets that were being tested. Before Price Pfister's occupancy of the Site, polyurethane manufacturing reportedly occurred in Building J.

**Building O:** Building O is constructed in the southwest corner of the Site (Figure 3). Building O served as Price Pfister's administrative offices.

**Machine Shop in Building P:** The Machine Shop existed in the northern portion of Building P (Figure 3) and was used for machining cast parts. Chemical usage in the Machine Shop consisted primarily of petroleum hydrocarbon lubricants and aqueous-based metalworking fluids.

**Maintenance Area in Building P:** The Maintenance Area was situated inside Building P east of the Machine Shop (Figure 3). The Maintenance Area had drill presses, lathes, saws, woodworking equipment, and welding equipment that were used to repair plating racks and other equipment. A parts washer with petroleum naphtha and drums containing oil were also placed for use in the Maintenance Area. During the time the foundry operated, mold patterns were cleaned in the Maintenance Area by immersing them in a 150-gallon above ground tank that held an alkaline solution.

**Foundry in Building P:** The foundry occupied most of the eastern portion of Building P (Figure 3) until foundry operations were ceased in 1997. The foundry housed two furnace lines, a furnace charge preparation area, grinding and cutting machines, mold handling, bond handling, and core sand mixing systems, core baking ovens, air compressors, baghouses and other air pollution control devices, and PCB-containing electrical transformers. Two emergency generators and two 550-gallon above ground diesel fuel tanks were installed outside of the portion of Building P that contained the foundry. Chemicals and materials used in foundry operations consisted of hydraulic oils, copper, lead, tin, and zinc, casting sands, linseed oil that served as a binder to fashion cores from the sands, and kerosene that acted as a core release. Wastes generated from foundry operations included slag, spent casting sand, and metal-containing baghouse dust.

The foundry was decommissioned in 1997 by cleaning and filling concrete vaults under the foundry lines and mold handling system with imported soil. The vaults were paved with concrete after filling them with soil. The walls, floor, and ceiling of the foundry were also cleaned and subsequently painted. The PCB-containing transformers and



dielectric fluid were removed and disposed at an off-site, permitted waste management facility.

**Single Control Factory in Building P:** The Single Control Focus Factory existed in the in the Fabrication and Storage Area in the southern portion of Building P (Figure 3). The Single Control Focus Factory was used for machining, soldering, and assembling faucet parts. Bending and cutting of tubes installed in faucets was also performed at this location. Petroleum lubricants, metalworking fluids, and other chemicals were employed in the Single Control Focus Factory.

**2/3 Handle Focus Factory in Building P:** The 2/3 Handle Focus Factory was located adjacent to the Single Control Focus Factory in the southern portion of Building P (Figure 3). This location was also known as the Fabrication and Storage Area and was used for machining, brazing, and assembling products.

**Forklift Repair Shop in Building P:** The Forklift Repair Shop was situated west of the foundry inside Building P (Figure 3). This location was used for forklift repair, carpentry, box repair, and welding.

**Shipping and Warehouse Area in Building P:** The Shipping and Warehouse Area for finished products occupied most of the western portion of Building P (Figure 3).

**Dock and Railroad Spur Area South of Building P:** The Dock and Railroad Spur Area was situated south of Building P (Figure 3). Materials used in manufacturing activities were unloaded and finished products were shipped from the north and south docks at this location. Asphalt pavement that contains a railroad spur runs between the docks. The railroad spur is no longer in service.

Roll-off bins containing metal chips and swarf produced by machining operations were stored on the north dock. Two ASTs were also installed on the north dock. One of the AST held petroleum hydrocarbon product while the other held used oil generated from manufacturing operations. A 1,000-gallon AST that contained PCE was located on the south dock. This tank was replaced by two approximately 1,300-gallon AST that held PCE and 1,1,1-TCA. The two 1,300-gallon ASTs were relocated to the Oil Staging Area in 1988.

**Casting Sand Reclamation Unit South of Building P:** A casting sand reclamation unit was located adjacent to the Oil Staging Area east of the Dock Area and Railroad Spur Area. The reclamation unit included three above ground silos, an underground sand



hopper, a receiving and mixing system, and a conveyor to transport the sand to the foundry inside Building P. This equipment was removed and the area was paved in connection with decommissioning the foundry.

**Building X:** Building X is an open-air structure that is constructed within the Building L Area (Figure 3). Price Pfister stored wastes and recyclable materials generated as a result of manufacturing operations in Building X. Four concrete sumps exist at this location. Two of the sumps collected rainfall and other surface water and are situated outside the building. The other two sumps are inside the perimeter of the open-air building and were used to contain wash down or other liquids that may have been impacted by wastes and recyclable materials stored in Building X.

Sample SB-3 collected at 5 ft bgs near one of the sumps inside the building is the only sample collected at other Site locations in which chemicals have been detected in soil at concentrations greater than direct contact RBSLs. Petroleum hydrocarbons as TEPH were measured at 7,200 mg/kg in sample SB-3. The RBSL for petroleum hydrocarbons is 1,000 mg/kg.

**Former USTs near Building O and in North Parking Lot:** Two 6,000-gallon unleaded gasoline USTs were removed from locations near Building O under LAFD supervision in March 1988. According to Enviropro (1988), the tanks were nine years old at the time of removal. In 1998, the LAFD issued a letter to Price Pfister stating that no further action with regard to the UST was required. The locations of the former 6,000-gallon unleaded gasoline USTs are shown on Figure 3.

A 40,000-gallon No. 2 diesel fuel oil UST was removed from the North Parking Lot under LAFD supervision in 1989. This tank had been installed in 1975 to hold fuel oil for boilers at the Site. In 1998, LAFD issued a "no further action" letter for this tank to Price Pfister. The location of the former 40,000-gallon No. 2 diesel fuel oil UST is shown on Figure 3.

**Site Sewer System:** The sewer system at the Price Pfister property consists of sanitary (e.g., domestic wastes) and industrial sewer lines (e.g. effluent from manufacturing operations) that discharged into the Los Angeles municipal sewer system pursuant to a permit issued by the City of Los Angeles Bureau of Sanitation. Sewage flow from most of the Site discharged to the municipal sewer system in Sutter Street. Sewage flow from Buildings A, B, and J discharged to the municipal sewer system in Louvre Street. Figure 3 depicts the approximate locations of known sewer lines at the Site. The actual locations of these pipelines have not been confirmed and could vary significantly from



the locations shown on Figure 3. Besides these known sewer lines, sewer lines that have been abandoned reportedly exist at the Site. The exact locations of these abandoned lines are not known.

**Electrical Transformers:** LADWP owns six pad-mounted electrical transformers that are located outside at the northeast corner of the former foundry. A fence enclosed the pad-mounted transformers. Two sets of pole-mounted transformers are located next to Buildings A and B.



## 8. COC IDENTIFICATION

COCs are chemicals that are determined to possibly pose a threat to human health and the environment at a given site. Chemicals measured in environmental media at the Price Pfister property are examined in this section to identify COCs for the Price Pfister property.

### 8.1 EXAMINATION OF DATA TO IDENTIFY COCS

Tables 21 through 23 list the chemicals that have been detected in soil, soil gas, and groundwater, respectively, at the Price Pfister property. Detected chemicals were not retained as COCs if they are: (1) present at ambient concentrations in soil, or (2) infrequently detected and do not pose a human health or environmental hazard.

#### 8.1.1 Ambient Metal Concentrations in Soil

Because trace metals occur naturally in soil, it is important to distinguish naturally occurring or ambient concentrations of metals from those related to impacts caused by site activities because U.S. EPA (1992b, 1989a) and DTSC (1999) do not intend metal releases to be remediated to concentrations that are below ambient concentrations. To aid in estimating ambient metal concentrations, EKI performed a statistical analysis of metal data for soil at the Price Pfister property. The statistical analysis generally conformed to the procedures outlined by DTSC in its guidance document, dated February 1997, entitled *Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities*. Analytical method reporting limits and descriptive statistics based upon best-fit modeling of the data were used to estimate ambient concentration thresholds for metals detected in soil at the Site.

Based on the statistical analysis, chromium, hexavalent chromium, copper, lead, nickel, and zinc were retained as COCs. Each of these metals were employed in manufacturing of plumbing products at the Site, and areas where levels of these metals in soil are higher than ambient concentrations correlate with manufacturing areas at the Price Pfister property. Arsenic, barium, cadmium, cobalt, mercury, and vanadium were not retained as COCs because none of these metals are associated with manufacturing that occurred at the Site, and detected concentrations do not suggest that releases of these metals at the Price Pfister property took place.



### 8.1.2 Infrequently Detected Organic Chemicals

Many organic chemicals listed in Tables 21 through 23 are rarely detected in soil, soil gas, and groundwater at the Site. Regarding the infrequent detection of chemicals, U.S. EPA (1989a) states that:

Chemicals that are infrequently detected may be artifacts in the data due to sampling, analytical, or other problems, and therefore may not be related to Site operations or disposal practices. Consider the chemical as a candidate for elimination from the quantitative risk assessment if: (1) it is detected infrequently in one or perhaps two environmental media, (2) it is not detected in any sampled media or at high concentrations, and (3) there is no reason to believe that the chemical may be present.

U.S. EPA risk assessment guidance was followed to establish the minimum frequency level for chemical detection. As suggested by U.S. EPA (1989a), an infrequently detected chemical was generally determined to be one that was detected in less than 5 percent of the samples for which it was analyzed and would be expected to occur. A chemical was also considered to be infrequently detected if it was measured at a frequency greater than 5 percent, but the number of samples analyzed was small and the chemical is not anticipated to be present at the Site. Such chemicals include 1,1,2-trichlorotrifluoroethane, acetone, chlorobenzene, 1,2-dichlorobenzene, 4-ethyltoluene, 1,2,5-trimethylbenzene, and carbon disulfide.

U.S. EPA (2000b) Region IX Preliminary Remediation Goals ("PRGs") for industrial land were used as thresholds to determine if chemicals detected in soil pose potential human health hazards at the Site. A chemical was determined not to represent a potential human health hazard if the maximum concentration at which it was detected was less than the relevant PRG for industrial land use. Interim Soil Gas Screening Levels developed by the RWQCB San Francisco Bay Region (2002), and MCLs, or PRGs for tap water if no MCLs have been promulgated for the chemicals in question, were employed to conduct an examination of chemicals detected in soil gas and groundwater that was similar to the one done for soil.

Infrequently detected organic chemicals were not retained as COCs if the maximum chemical concentrations were less than PRGs or Interim Soil Gas Screening Levels and the chemicals were not believed to be plausibly associated with chemical releases at the Site. However, these criteria were applied with judgment. Several organic chemicals were retained as COCs even though the chemicals were infrequently detected in one or



more media at concentrations below screening levels. These chemicals include chrysene, phenanthrene, and pyrene found at the Building L Area. The frequencies of detection for chrysene, phenanthrene, and pyrene are skewed because these SVOCs are limited to black sand deposited at the Building L Area and examining the frequencies of detection for chrysene, phenanthrene, and pyrene in all soil samples collected at the Price Pfister property fail to recognize this fact because SVOCs are not widely distributed in soil at the Site. Vinyl chloride was kept as a COC because it could appear in the future due to anaerobic biological transformation of PCE and subsequent migration in groundwater from the Holchem/Brenntag facility.

## 8.2 IDENTIFIED COCS

Detected chemicals that remained after completing the data examination were determined to be COCs. COCs for the Price Pfister property consist of the following:

### Identified COCs for Price Pfister Property

VOCs	
Primary VOCs	Secondary VOCs
<ul style="list-style-type: none"> <li>• PCE</li> <li>• 1,1,1-TCA</li> <li>• TCE</li> <li>• cis-1,2-DCE</li> <li>• 1,1-DCE</li> </ul>	<ul style="list-style-type: none"> <li>• 1,1-DCA</li> <li>• 1,2-DCA</li> <li>• trans-1,2-DCE</li> <li>• Bromomethane</li> <li>• Chloroform</li> <li>• Trichlorofluoromethane</li> <li>• Vinyl Chloride</li> <li>• Benzene</li> <li>• Toluene</li> <li>• Ethylbenzene</li> <li>• Total Xylenes</li> </ul>



Non-VOCs		
Petroleum Hydrocarbons	Metals and Cyanide	SVOCs
<ul style="list-style-type: none"> <li>• TEPH</li> </ul>	<ul style="list-style-type: none"> <li>• Chromium</li> <li>• Hexavalent Chromium</li> <li>• Copper</li> <li>• Lead</li> <li>• Nickel</li> <li>• Zinc</li> <li>• Cyanide</li> </ul>	<ul style="list-style-type: none"> <li>• Chrysene</li> <li>• Phenanthrene</li> <li>• Pyrene</li> </ul>

As noted in the tables above, VOCs at the Price Pfister property have been divided into primary VOCs and secondary VOCs. Primary VOCs consist of chlorinated solvents and degradation products of chlorinated solvents that are most commonly found in soil, soil gas, and groundwater at the Site. Secondary VOCs are VOCs that are found less frequently than primary VOCs in environmental media at the Price Pfister property. As discussed in Section 9, other than PCE, most of the other primary VOCs, as well as secondary VOCs, are attributable to chemicals migrating from releases that occurred at Holchem/Brenntag or other nearby facilities.



## 9. CHEMICAL FATE AND TRANSPORT

This section presents a discussion of the fate and transport of VOCs and non-VOCs (e.g., petroleum hydrocarbons, metals and cyanide, and SVOCs). Review of available analytical results indicates that PCE, and to a lesser degree, 1,1,1-TCA and other VOCs are widespread in soil gas and groundwater beneath the Price Pfister property. In contrast, non-VOCs are limited to certain areas of the Site and do not display appreciable mobility in the environment. The evaluation of chemical fate and transport in this section focuses on VOCs because of the possible risks to human health and groundwater quality caused by the mobility of VOCs at the Site.

### 9.1 FATE OF VOCs

PCE is the primary VOC detected in soil at the Site. PCE that may have been released at the Price Pfister property does not appear to have entered groundwater as a distinct organic liquid. To understand how PCE and other VOCs may have reached groundwater, the physical, biological, and chemical processes affecting the fate of PCE and other VOCs in the unsaturated and saturated zones at the Price Pfister property and nearby facilities must be examined. Physical processes govern the partitioning of VOCs among physical states. Biological processes involve the transformation of VOCs by microorganisms. Chemical processes refer to mechanisms by which VOCs are converted through reactions with water, dissolved constituents in water, and soil.

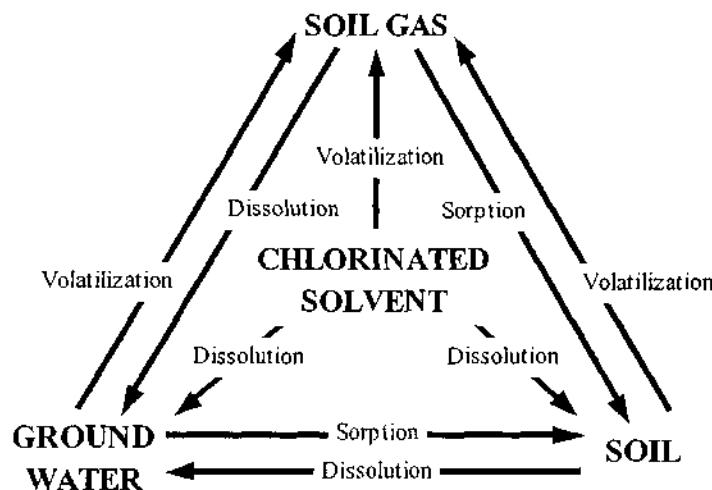
#### 9.1.1 Physical Processes

Chlorinated solvent released to the soil as a distinct organic liquid will often reach a point where the solvent no longer holds together as a continuous liquid, but rather is present in the unsaturated zone as small, disconnected blobs or globules. These blobs or globules held in soil are termed residual saturation (U.S. EPA, 1991c). Chlorinated solvent at residual saturation remains in soil. Review of analytical results, and geologic and hydrogeologic information suggests that liquid PCE at the Price Pfister property has remained in soil and did not enter groundwater. PCE in groundwater beneath the Price Pfister property that is not attributable to chemical releases at Holchem/Brenntag or other nearby facilities probably originate from PCE volatilizing from residual liquid PCE in the unsaturated zone.



Residual chlorinated solvent in the unsaturated zone will seek equilibrium between four physical states or phases. VOCs associated with the released chlorinated solvent can: (1) remain as liquid in soil, (2) volatilize into soil gas, (3) sorb to soil, or (4) dissolve in water. The distribution of VOCs among these phases can be represented by empirical relationships called equilibrium partition coefficients. The partition coefficients are site-specific and defined by the physical and chemical properties of the VOCs and subsurface environment. The diagram below adapted from U.S. EPA (1991c) illustrates the physical processes by which VOCs transfer phases to reach equilibrium.

### Physical Processes Affecting Phase Equilibrium of VOCs in Chlorinated Solvent



Chlorinated solvent in the unsaturated zone is essentially immobile as sorbed residual liquid. As represented by the four phase diagram, VOCs in residual liquid can migrate further only in soil gas or dissolved in water that infiltrates through the subsurface. Sorption, volatilization, and dissolution of VOCs detected at the Site are discussed in Sections 9.1.1.1 through 9.1.1.3.

#### 9.1.1.1 Sorption

The term “sorption” denotes the uptake of a vapor or solute without reference to the specific uptake mechanism (Chiou, 1989). Sorption of chlorinated solvent is a complex physical process that depends upon the capillary pressure. Capillary pressure is a measure of the pores in soil to retain water moisture. Capillary pressure depends upon the soil type, geometry of the pores, nature of the chlorinated solvent, and subsurface moisture content. Although soils at the Site are composed primarily of well-graded sandy gravel and gravelly sand that would tend to lessen the residual saturation of a chlorinated



solvent, these sands and gravels are relatively dry, which may counteract the effects of their high permeability. Measured moisture contents of soil at the Price Pfister property range from approximately 4.5 to 17.7 percent by volume, with the average moisture content calculated to be 7.2 percent by volume (Table 24). Schaap and Leij (1998) give the residual moisture content of sands and gravels as 5.3 percent by volume.

U.S. EPA (1991c) states that greater residual saturation of a chlorinated solvent can be expected in dryer soils. Buildings and paving covering the Price Pfister property restrict surface water infiltration and result in dry soil that has a higher residual saturation for chlorinated solvent. This higher residual saturation may be a contributing factor to why PCE did not enter groundwater as a liquid.

PCE that volatilizes or dissolves from residual liquid in the unsaturated zone may also sorb to organic matter because these chemicals are nonpolar and nonionic in nature and attracted to organic substrates. Soil impacted by petroleum hydrocarbons in the Building A Area provides organic substrates into which PCE and other VOCs can partition. As described in Section 7.2.2.2, petroleum hydrocarbons associated with pale oil releases are present at several locations in the Building A Area (Figures 35 and 36). Petroleum hydrocarbon concentrations measured in soil range from 17.6 to 32,400 mg/kg (Table 9).

The hydrophobic nature of VOCs leads them to sorb into petroleum hydrocarbons. U.S. EPA (1993a) states that the "presence of anthropogenic, nonpolar organic liquid wastes," such as petroleum hydrocarbons, will increase the sorption of "nonionic organic compounds," such as VOCs. The affinity of VOCs for petroleum hydrocarbons can be demonstrated by examining the octanol/water equilibrium partition coefficient (" $K_{ow}$ "), which is defined as the ratio of a chemical's concentration in octanol to its concentration in water of a two-phase octanol/water system.

Equation 9-1 Octanol/Water Equilibrium Partition Coefficient

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$$K_{ow} = \frac{\text{Chemical Concentration in Octanol}}{\text{Chemical Concentration in Water}}$$

The  $K_{ow}$  of a chemical represents the tendency of the chemical to partition itself between an organic phase and an aqueous phase. Values of  $K_{ow}$  are unitless. Measured  $K_{ow}$  values for PCE range from 338 (Montgomery, 2000) to 2,512 (Howard, 1990).



The highest PCE concentration in groundwater at the Site has been measured in monitoring well MW-5 at 3,213 µg/L in March 2002. FHP on groundwater beneath Building A has a specific gravity of approximately 0.94 based upon the product information for pale oil that was used by Price Pfister (Edgington Oil Company, Inc., 1985). Assuming FHP at this specific gravity is in contact with groundwater with PCE at 3,213 µg/L, the petroleum hydrocarbons will accumulate PCE until the concentration of PCE in the FHP reaches the following calculated equilibrium concentration:

$$\text{Equilibrium Concentration of PCE in FHP} = (338 \text{ to } 2,512) \left( \frac{3,213 \mu\text{g}_{\text{PCE}}}{L_{\text{water}}} \right)$$

$$\left( \frac{L_{\text{water}}}{1,000 \text{ gm}_{\text{water}}} \right) \left( \frac{\text{gm}_{\text{water}}}{0.94 \text{ gm}_{\text{FHP}}} \right) \left( \frac{\text{mg}_{\text{PCE}}}{1,000 \mu\text{g}_{\text{PCE}}} \right) \left( \frac{1,000 \text{ gm}_{\text{FHP}}}{\text{kg}_{\text{FHP}}} \right) = \frac{1,200 \text{ to } 8,600 \text{ mg}_{\text{PCE}}}{\text{kg}_{\text{FHP}}}$$

PCE has been detected in the FHP at 27, 220, and 310 mg/kg (Table 19). These measured concentrations are much less than the equilibrium PCE concentration of 1,200 to 8,600 mg/kg in the FHP predicted from the  $K_{ow}$  for PCE. Comparison of measured and calculated equilibrium PCE concentrations in FHP indicates that PCE will not be released back into soil gas or groundwater once it has been sorbed into the FHP because the FHP has the capacity to accumulate more PCE.

Besides PCE, petroleum hydrocarbons in soil contain bromomethane, which is also referred to as methyl bromide. The source of bromomethane has not been established. No known use of bromomethane occurred at the Price Pfister property. Despite the fact that the source of bromomethane has not been established, the presence of bromomethane in soil is not anticipated to govern the development and selection of remedial actions for the Site. The maximum concentration of bromomethane that has been detected in soil is 1.36 mg/kg, which is less than the direct contact RBSL of 4,200 mg/kg. Further, bromomethane appears to be sorbed into released oil and is immobile. No bromomethane has been detected in soil gas or groundwater beneath the Price Pfister property.

#### 9.1.1.2 Volatilization

Volatilization of PCE from residual liquid in the unsaturated zone continues at the Price Pfister property. As identified in Section 12.2.2.1, vapor intrusion into buildings is the primary potentially complete exposure pathway that could affect industrial/commercial workers at the Site.



SVE systems operating in the Central Building P Area and Oil Staging Area are presently recovering and controlling migration of VOCs in the unsaturated zone at the Price Pfister property. PCE concentrations in soil gas samples collected from most soil vapor monitoring wells are now less than the vapor intrusion RBSL of 38 µg/L, as shown on Figures 10 and 11.

As discussed in Section 5.1, approximately 110 gallons of liquid chlorinated solvent have been recovered by the SVE systems as of 14 January 2003. The majority of this recovered liquid originated from volatilization of PCE in the unsaturated zone because the maximum PCE concentrations detected in groundwater beneath the Site are too low to have caused the PCE concentrations of 86,000 and 22,600 µg/L measured in soil gas at the Central Building P Area and Oil Staging Area, respectively, before beginning operation of the SVE systems. These PCE soil gas concentrations are consistent with volatilization of liquid PCE that sorbed completely to soil before it reached groundwater.

PCE in groundwater beneath the Price Pfister property that is not due to off-Site chemical releases (e.g., Holchem/Brenntag facility) likely resulted from PCE that volatilized from residual liquid in the unsaturated zone and sank by gravity to the top of the saturated zone. U.S. EPA (1993a, 1991c) has suggested that gas phase advection may dominate the transport of VOCs from residual chlorinated solvent in high permeability soils, such as those found at the Price Pfister property. As the chlorinated solvent evaporates, the density of the gas in contact with the residual liquid changes with respect to the ambient soil gas. This density difference results in advective gas flow. PCE at the concentrations detected in soil gas before beginning operation of the SVE systems had a vapor density greater than air, so density driven flow of PCE was downward causing these VOCs to accumulate on top of the saturated zone and dissolve into groundwater.

The SVE systems are therefore addressing the major source of VOC contamination at the Price Pfister property by producing conditions where residual liquid PCE is volatilized and subsequently captured by recovering PCE in soil gas. Removal of PCE in soil gas that derives from residual liquid PCE will benefit groundwater conditions by not only eliminating the contaminant source but by altering the phase equilibrium of the VOCs as well. As VOC concentrations in soil gas decline further, the phase equilibrium will shift and VOCs will begin to partition from groundwater to soil gas. VOCs that volatilize into soil gas from groundwater can be recovered by the SVE systems, which will serve to improve groundwater quality beneath the Site by reducing the mass of VOCs in groundwater.



#### 9.1.1.3 Dissolution

VOCs will dissolve when in physical contact with water. The equilibrium concentration of the VOC in water is referred to as its solubility. Schwille (1988) reports the solubility of PCE in water to be 200,000 µg/L.

One manner in which dissolution of VOCs takes place is by surface water infiltrating into the subsurface and contacting residual chlorinated solvent in the unsaturated zone. VOCs, which dissolve in the water, can leach further downward through soil until the top of the saturated zone is encountered. Upon reaching the saturated zone, the dissolved VOCs will migrate in the direction of groundwater flow. Dissolving and leaching of PCE from residual liquid PCE may occur at the Price Pfister property but it is not believed to be a dominant physical process because the quantity of surface water that infiltrates into soil is likely to be small. The majority of the Site is covered by buildings or paved with asphalt or concrete, which restrict surface water infiltration.

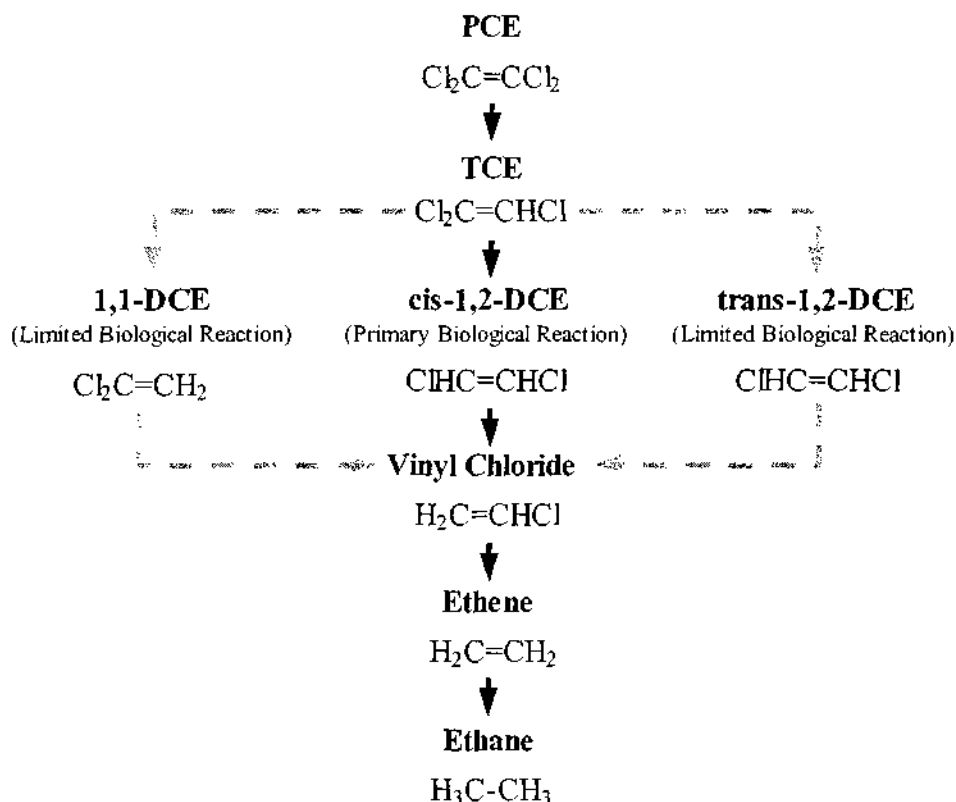
#### 9.1.2 **Biological Processes**

Biological transformation of VOCs by indigenous microorganisms, such as bacteria and fungi, can occur under aerobic (i.e., presence of oxygen) and anaerobic (i.e., lack of oxygen) conditions. Aerobic degradation can entail direct or cometabolic oxidation of chlorinated VOCs to carbon dioxide, water, and chloride. Direct oxidation refers to the microbial breakdown of a compound in which the compound serves as an electron donor and as a primary growth substrate for the microorganism mediating the reaction. Cometabolic oxidation is the microbial breakdown of a compound in which the compound is oxidized incidentally by an enzyme or cofactor produced by the microorganism during metabolism of another substrate. Unlike direct oxidation, cometabolic oxidation does not yield energy or growth benefit for the microorganism involved in the reaction.

In general, only chlorinated solvents with one or two chlorine atoms (e.g., cis-1,2-DCE, 1,1-DCE, 1,1-DCA, 1,2-DCA, trans-1,2-DCE, and vinyl chloride) can be directly oxidized by microorganisms under aerobic conditions. These less chlorinated VOCs also can be oxidized cometabolically under aerobic conditions. TCE has been observed to be oxidized cometabolically under aerobic conditions, but PCE is harder to degrade under aerobic conditions (U.S. EPA, 2000c). PCE is biologically transformed under anaerobic conditions through reductive dechlorination as illustrated by the below diagram.



### Reductive Dechlorination of PCE



Reductive dechlorination is a process in which a chlorinated solvent acts as an electron acceptor and a chlorine atom on the chemical is replaced with a hydrogen atom. This process results in the reduction of the chlorinated solvent. When this process is biologically mediated, and the microorganism is using the chlorinated solvent for energy and growth, the process is termed halorespiration (Weidemeier, et. al., 1999). Hydrogen is used as the electron donor during halorespiration and is typically supplied indirectly through fermentation of other organic substrates.

Relatively low concentrations of reductive dechlorination transformation products of PCE are found in soil gas and groundwater samples collected at the Site. While reductive dechlorination of PCE may be occurring in limited portions of the Price Pfister property where anaerobic conditions may exist, such as the fringes of FHP in soil and groundwater beneath the Building A Area, review of available information suggests that this anaerobic biological process is not greatly affecting Site conditions. Reductive dechlorination of PCE happens under very anaerobic conditions that are not now present or anticipated in the future at the Site. As discussed in Section 3.4.1, anaerobic conditions exist at the Holchem/Brenntag facility and many of the VOCs detected in groundwater at the Price



Pfister property are degradation products attributable to the reductive dechlorination of PCE and TCE that is occurring at the Holchem/Brenntag facility.

SVE monitoring data obtained on 4 November 2002 provide evidence that the unsaturated zone at the Price Pfister property is aerobic. Soil gas samples collected from most soil vapor monitoring wells have oxygen concentrations of 20 percent by volume, which is typical of ambient air. No anaerobic transformation products such as methane were detected in any of the collected soil gas samples. Oxygen in the unsaturated zone has not been depleted to levels that would allow establishment of anaerobic conditions.

Aerobic biological transformation of petroleum hydrocarbons in the Building A Area is taking place to some extent. Carbon dioxide was measured at concentrations between 4.8 and 13.1 percent by volume in soil gas samples collected from soil vapor/groundwater monitoring well PMW-17 on 4 November 2002. Oxygen concentrations ranged from 8.7 to 16.2 percent by volume in soil gas samples from well PMW-17 on 4 November 2002. Although oxygen concentrations in the unsaturated zone at the Building A are far from being depleted, the data do show that some portion of available oxygen is being reduced to carbon dioxide as microorganisms consume petroleum hydrocarbons. In soil gas samples collected from wells where little or no petroleum hydrocarbons are present in soil, measured carbon dioxide ranged from 0.1 to 3.9 percent by volume and oxygen concentrations ranged from 18.2 to 20.9 percent by volume, which displays little difference from ambient air.

Aerobic conditions also persist in the saturated zone throughout the Price Pfister property. Dissolved oxygen concentrations in groundwater samples collected from monitoring wells range from approximately 2.5 mg/L for well MW-5 to 6 mg/L for well PMW-15. The dissolved oxygen concentration in groundwater samples from most monitoring wells is between 3 and 5 mg/L. These dissolved oxygen concentrations are considerably higher than the level that signifies the onset of anaerobic conditions. Denitrification, the initial electron-accepting reaction that occurs under idealized anaerobic conditions, begins only when the dissolved oxygen concentration in groundwater falls to less than 0.5 mg/L (Weidemeier, et. al., 1999).

### 9.1.3 Chemical Processes

Chemical processes that are significant to VOCs found at the Price Pfister property likely involve the abiotic reactions of 1,1,1-TCA with groundwater. As reported by Vogel and McCarty (1987), abiotic transformation of 1,1,1-TCA results in two possible products, 1,1-DCE and acetic acid. The elimination reaction of 1,1,1-TCA creates 1,1-DCE.



Nucleophilic substitution reaction of 1,1,1-TCA with water, also referred to as hydrolysis, creates acetic acid. Review of groundwater monitoring analytical results shows 1,1-DCE to be present in monitoring wells that contain 1,1,1-TCA. Acetic acid is also probably being formed but groundwater samples are not routinely analyzed for acetic acid because it represents little human health or environmental hazard.

## 9.2 TRANSPORT OF VOCs

VOCs can migrate as vapor in the subsurface. However, review of PCE soil gas contours on Figures 8 through 11 demonstrates that the VOC sources at the Central Building P Area and Oil Staging Area are being controlled and remediated by the SVE systems operating at the Site. VOCs may also leach from soil to the saturated zone but this process is probably less significant because buildings, pavement, or other improvements restrict the quantity of surface water that infiltrates into soil at the Price Pfister property.

PCE exists in groundwater at the Central Building P Area and Oil Staging Area, which is partly attributed to PCE vapor that migrated by density driven flow and subsequently dissolved into groundwater upon reaching the saturated zone. Density driven flow of PCE is no longer occurring because the SVE systems are controlling and remediating the VOC sources at the Central Building P Area and Oil Staging Area.

The remainder of PCE in groundwater at the Central Building P Area and Oil Staging Area as well as most of the other VOCs detected in groundwater throughout the Site are due to VOCs that have been transported by groundwater from Holchem/Brenntag or other nearby facilities. Figures 53 through 58 illustrate the VOC plumes in groundwater originating from the Holchem/Brenntag facility. Consistent with the apparent anaerobic conditions at the Holchem/Brenntag facility, biological degradation products of PCE consisting of TCE and cis-1,2-DCE in groundwater also are emanating from the Holchem/Brenntag facility (Figures 54 and 55). TCE and cis-1,2-DCE detected in groundwater at the Price Pfister property must originate from the Holchem/Brenntag facility because these biological degradation products are unlikely to be formed in appreciable amounts from PCE in groundwater at the Price Pfister property because the unsaturated and saturated zones at the Site are aerobic, as explained in Section 9.1.2. Figures 56 and 57 illustrate that 1,1,1-TCA and its abiotic transformation product, 1,1-DCE, in groundwater result primarily from chemical releases at the Holchem/Brenntag facility.



The extent to which VOCs from the Holchem/Brenntag facility have been transported in groundwater beyond the Price Pfister property is unknown. Groundwater moves in the south-southeast direction until it reaches the fault situated near the boundary of the Site. The groundwater flow regime becomes complex where it encounters this fault (Figures 15 and 16). The fault causes groundwater along Louvre Street to move in a southwest direction. The source of VOCs in groundwater along Louvre Street, which is on the side of the fault opposite the Price Pfister property, has not been established. The Verdugo Fault appears to run parallel to Sutter Avenue. The manner in which the Verdugo Fault influences groundwater flow along Sutter Avenue has not been investigated.

Chemical releases at the D&M Steel facility further confound the understanding of VOCs in groundwater off the Price Pfister property. The D&M Steel facility may be a source of VOCs to groundwater. Analytical results of groundwater samples obtained from monitoring wells at the facility show that the groundwater contains VOCs. DTSC and U.S. EPA have recommended that additional assessment of the D&M Steel facility be performed to characterize the impact of chemical releases at the facility on soil and groundwater. However, it does not appear that additional assessment of the D&M Steel facility has been performed.

### **9.3 FATE OF NON-VOCs**

Metals and SVOCs are generally recalcitrant to bioremediation or other processes that would cause appreciable loss of these COCs in soil. Metals and SVOCs in soil are generally covered or removed by excavated where necessary.

Petroleum hydrocarbons can be biologically degraded. The rate of degradation depends upon the characteristics of the petroleum hydrocarbons, the concentrations at which petroleum hydrocarbons are present in soil, and the availability of oxygen, water, and essential nutrients. As discussed in Section 9.1.2, while available data suggests that microorganisms are consuming petroleum hydrocarbons in the Building A Area, the extent of transformation is probably limited by the presence of FHP in soil and groundwater at this area. Continued FHP collection is likely required to increase the rate at which petroleum hydrocarbons are biologically transformed and permit bioremediation or natural attenuation to be a viable mechanism for addressing residual petroleum hydrocarbons in the subsurface after FHP collection has been finished.



#### 9.4 TRANSPORT OF NON-VOCs

With the exception of hexavalent chromium, the findings of the RI and previous investigations do not indicate that petroleum hydrocarbons, metals and cyanide, and SVOCs remaining in the subsurface at the Site are mobile. Regarding the general lack of mobility of metals in the environment, U.S. EPA (1992a) states the following:

Immobilization of metals, by mechanisms of adsorption and precipitation, will prevent movement of the metals to ground water. Metal-soil interaction is such that when metals are introduced at the soil surface, downward transportation does not occur to any great extent unless the metal retention capacity of the soil is overloaded, or metal interaction with the associated waste matrix enhances mobility.

Metal COCs consist of chromium, hexavalent chromium, lead, nickel, and zinc. Except for hexavalent chromium, none of the factors cited by U.S. EPA that would potentially affect the retention of metals exist at the Site.

Petroleum hydrocarbons as oils and SVOCs found at the Price Pfister property display similar characteristics as metals. Petroleum hydrocarbons as oils and SVOCs bind tightly to soil and are not prone to leach to groundwater or otherwise migrate in the subsurface. Migration of petroleum hydrocarbons as oils, metals, and SVOCs would be anticipated to occur only if impacted soil were exposed to particulate transport by wind, surface water runoff, or direct human contact. These modes of transport are not considered likely because buildings and pavement now cover impacted soil at the Price Pfister property, and existing or new improvements will do so in the future.

Hexavalent chromium is unique among metals in that it is prone to leaching as the pH and oxidation-reduction potential of soil increase. Soil at the Site displays both of these properties. The average value of pH measurements made on soil samples is calculated to be 8.79 and, as discussed further in Section 9.1.2, soil gas samples collected from most soil vapor monitoring wells have oxygen concentrations of 20 percent by volume, which is typical of ambient air. The low organic matter of soil, as discussed in Section 9.1.1.1, also suggests soil at the Site has higher oxidation-reduction potentials.

The tendency of hexavalent chromium to leach from soil at the Site is consistent with laboratory analysis of groundwater samples collected from monitoring wells. Hexavalent chromium has been measured in groundwater at concentrations up to 35 µg/L. Hexavalent chromium concentrations in groundwater appear to have originated from



releases that occurred at the plating line and WWTS in the Central Building P Area. However, the releases at this location are believed to be minor because hexavalent chromium is detected only sporadically in soil and no significant source area has been identified.



## 10. CONCEPTUAL SITE MODEL

Analytical results and information obtained from the RI and previous investigations have been presented herein to formulate the CSM for the Price Pfister property. U.S. EPA coined the phrase “conceptual site model” to refer to a systematic means of explaining observed contamination. U.S. EPA (1997b) describes the CSM as follows:

The conceptual site model (CSM) is a three-dimensional “picture” of site conditions that illustrates contaminant sources, release mechanisms, exposure pathways, migration routes, and potential human and ecological receptors. The CSM documents current and potential future site conditions and is supported by maps, cross sections, and site diagrams that illustrate what is known about human and environmental exposure through contaminant release and migration to potential receptors.

Not only is the CSM instrumental in organizing and presenting data in a logical fashion, the CSM aids in evaluation of remedial actions that will protect human health and the environment. Sections 10.1 through 10.4 summarize the CSM for the Price Pfister property.

### 10.1 PHYSICAL SETTING

Plumbing products were manufactured at the Price Pfister property from approximately the mid-1950s to 2002. Manufacturing activities ceased in 2002 and all manufacturing equipment has been removed from the Site. The only commercial operations being performed currently at the Site relate to storing and shipping finished products. Buildings, asphalt or concrete pavement, and other improvements cover the Price Pfister property.

#### 10.1.1 Site Geologic Conditions

Soil beneath the Site consists of well-graded sandy gravels and gravelly sands with only minor percentages of silt and clay. The soil has low moisture content as buildings and paving covering the Price Pfister property restrict surface water infiltration.



### 10.1.2 Site Hydrogeologic Conditions

Groundwater is encountered at a depth of approximately 50 to 60 ft bgs throughout the majority of the Site. However, several faults, which may be potential splays of the Verdugo Fault, cause groundwater levels along the southern boundary of the Price Pfister property to drop abruptly by approximately 20 feet and groundwater along the southern boundary of the Site is encountered at approximately 70 ft bgs.

The abrupt decline in groundwater levels along the southern boundary of the Price Pfister property reflects the influences of "groundwater barriers" that exist within the subsurface. The groundwater barriers are the result of faulting that has created clay-filled shear and clay gouge zones that restrict groundwater flow. The faults do not extend to ground surface or even to the top of the saturated zone because they are concealed by the deposition of additional alluvial deposits. This stratigraphy appears to result in "groundwater cascades" whereby groundwater spills over the top of the faults. Figures 15 and 16 illustrate the groundwater cascades at the Site in plan- and cross-section views.

The faults also influence the magnitude of horizontal and vertical groundwater gradients across the Site and cause the direction of groundwater flow to change from a southeasterly to a southwesterly direction near Louvre Street. The fact that the faults act as a barrier may explain the upward vertical groundwater observed in monitoring wells MW-5 and PMW-21B, which are situated near the faults along the southern boundary of the Price Pfister property. Deeper groundwater that encounters the faults cannot easily pass through the low permeability clay-filled shear and clay gouge zones. The groundwater is forced to rise up the faults until it reaches the alluvial deposits and spills over the faults as groundwater cascades. The upward vertical groundwater gradients are evidence supporting the notion that the faults cause upward groundwater flow.

## 10.2 CHEMICAL RELEASES AT NEARBY FACILITIES

At least five commercial or industrial facilities near the Site have been assessed for actual or potential chemical releases to the environment. These facilities consist of Holchem/Brenntag, D&M Steel, American Etching and Manufacturing, and Chapman Manufacturing/Flynns Plating, and a Chevron Service Station. Although investigations of releases at nearby facilities are limited, the available data demonstrate that some of the PCE and the majority of all other VOCs detected in soil gas and groundwater at the Price Pfister property are attributable to chemical releases that occurred at the VOCs from the Holchem/Brenntag facility.



The Holchem/Brenntag facility is in the up-gradient direction of groundwater flow from the Site, and stored and distributed PCE, TCE, 1,1,1-TCA, and other chemicals from at least 1967 to 2001. Further, several VOCs, such as cis-1,2-DCE, 1,1-DCA, and 1,2-DCA, found in groundwater at the Holchem/Brenntag facility and Price Pfister property are degradation products formed by microorganisms under anaerobic (i.e., lack of oxygen) conditions. These products could have originated only from the Holchem/Brenntag facility because aerobic (i.e., presence of oxygen) conditions exist at the Price Pfister property while anaerobic conditions exist at the Holchem/Brenntag facility. Figures 53 through 57 illustrate the concentration contours of PCE, TCE, cis-1,2-DCE, 1,1,1-TCA, and 1,1-DCE in groundwater emanating from the Holchem/Brenntag facility.

### 10.3 ENVIRONMENTAL CONDITIONS AT PRICE PFISTER PROPERTY

VOC and non-VOC sources at the Price Pfister property are limited primarily to four areas of the Site where chemical handling occurred. These areas consist of the Central Building P Area, Building A Area, Oil Staging Area, and Building L Area, as shown on Figure 4.

#### 10.3.1 VOCs

Based on the data summarized herein, it appears that PCE in the unsaturated zone at the Central Building P Area and Oil Staging Area is due to relatively small releases of chlorinated solvent. Chlorinated solvent released as a distinct organic liquid will often reach a point where the solvent no longer holds together as a continuous liquid, but rather is present in the unsaturated zone as small, disconnected blobs or globules. These blobs or globules held in soil are termed residual saturation. Residual saturation of chlorinated solvent can exhaust the quantity of organic liquid before it reaches groundwater. PCE in groundwater beneath the Price Pfister property that is not attributable to chemical releases at Holchem/Brenntag or other nearby facilities probably originate from PCE volatilizing from residual PCE liquid in the unsaturated zone. Available data do not indicate that PCE entered groundwater as organic liquid.

PCE in groundwater beneath the Price Pfister property that is not attributable to chemical releases at Holchem/Brenntag or other nearby facilities probably originated from PCE volatilizing from residual liquid PCE in the unsaturated zone. Because PCE vapor is heavier than air, it will sink by gravity to the top of the saturated zone where it can



dissolve in groundwater. Figure 63 illustrates this transport mechanism, which is known as density driven flow.

### 10.3.2 Non-VOCs

Metals and petroleum hydrocarbons characteristic of oil have been detected in soil at the plating line and WWTS in the Central Building P Area. Except for hexavalent chromium, metals and petroleum hydrocarbons detected in soil at this location have not been found in underlying groundwater. Unlike other metals, hexavalent chromium is soluble and has been measured in groundwater at concentrations up to 35 µg/L in monitoring wells at the Price Pfister property. However, no significant source of hexavalent chromium in soil has been identified.

Oils were released at the Building A Area. The oils traveled through soil under their own weight and pooled as FHP on top of groundwater. The FHP is not moving as a separate phase or as dissolved constituents in groundwater because the FHP consists of heavier molecular weight petroleum hydrocarbons that have a high viscosity and low solubility in water. Collection of FHP on groundwater was initiated in 1995 and continues to date.

Petroleum hydrocarbons associated with oils, metals, and semi-volatile organic compounds ("SVOCs") detected in casting sands deposited near Building L bind tightly to soil and have not been found in groundwater at this area. Non-VOCs and casting sands in soil at the Building L Area are confined to the upper 3 feet of the Site.

## 10.4 POTENTIAL NEED FOR REMEDIAL ACTIONS

The Price Pfister property is currently zoned for industrial use. Future uses may involve industrial redevelopment or conversion to commercial use. Given these potential land uses, the primary, on-Site future populations or human receptors that may be potentially exposed to VOCs and non-VOCs in the subsurface are earthwork construction workers, industrial/commercial workers, and maintenance personnel. The hypothetical risks to these individuals and numerical guidelines calculated for their protection are presented in this RI report.

In deriving numerical guidelines, it was assumed that groundwater at the Site will not be used for potable supply or other purposes, and that buildings, pavement, or other improvements will continue to cover the Price Pfister property. On the basis of these assumptions, vapor intrusion is the potentially complete exposure pathway to VOCs for



industrial/commercial workers, and direct contact with contaminated soil through ingestion, dermal contact, and inhalation are the potentially complete pathways to VOCs and non-VOCs for earthwork construction workers and maintenance personnel. Besides hypothetical human health risks, VOCs also represent a risk to groundwater quality because they can migrate to groundwater as soil vapors by density driven flow.

SVE systems operating at the Price Pfister property have been removing PCE from soil since it was released. As depicted on Figure 11, control of PCE and other VOC vapors by continued use of the SVE systems will likely eliminate the major sources of PCE contamination at the Price Pfister property and mitigate the hypothetical risks associated with vapor intrusion. Operation of the SVE systems will also benefit groundwater conditions by altering the equilibrium of VOCs between soil gas and groundwater. As VOC concentrations in soil gas decline further, the phase equilibrium will shift and VOCs will begin to partition from groundwater to soil gas.

Petroleum hydrocarbons as oils, metals, and SVOCs at the plating line and WWTS in the Central Building P Area, Building A Area, and Building L Area pose lower human health and environmental risks because these non-VOCs, with the exception of hexavalent chromium, are not mobile. Exposure to these chemicals can occur only if individuals (e.g., earthwork construction workers and maintenance personnel) breach the building foundations, pavement, and other improvements covering the Price Pfister property. Soil with non-VOC concentrations greater than RBSLs that may be directly contacted by earthwork construction workers or maintenance personnel will be addressed by remedial actions in the RAP to be prepared for the Price Pfister property.



## 11. REMEDIAL ACTION OBJECTIVES

This section presents RAOs and outlines the purpose of leaching values and RBSLs for soil at the Price Pfister property. RAOs define the aims for protecting human health and the environment that will be achieved through implementation of remedial actions. Leaching values and RBSLs are numerical guidelines designed to help with identifying sources of COCs that pose significant human health or environmental risks, and/or to aid in evaluating whether remedial actions implemented to address these identified sources achieve RAOs.

### 11.1 REMEDIAL ACTION OBJECTIVES

Section 13304 of the California Water Code governs RWQCB's oversight of investigation and remediation of chemical releases to soil and groundwater to preserve the water quality of the State. Chapter 6.8 of the HSC describes requirements for preparing a RAP under RWQCB or DTSC supervision, including the recommendation of remedial actions that are based upon evaluation of selection criteria contained in the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), set forth in Part 300, Title 40 of the Code of Federal Regulations ("CFR"). In particular, the NCP, at 40 CFR §300.430(a)(1)(i), explains that the goals of the remedy selection process are to develop and implement remedial actions that protect human health and the environment, maintain protection over time, and minimize untreated waste.

To help meet the requirements of Section 13304 of the California Water Code and Chapter 6.8 of the HSC, remedies for chemical releases to soil and groundwater at a site that will achieve RAOs are selected. In other words, RAOs provide the foundation upon which remedial alternatives are assembled. RAOs should consider potentially complete exposure pathways as well as numerical remediation goals because protectiveness may be achieved by either preventing exposure (such as capping an area or limiting access) or by reducing contaminant concentrations (U.S. EPA, 1988). RAOs should also allow evaluation of remedial alternatives that will achieve numerical remediation goals associated with the reasonably anticipated land use of the Site in question (U.S. EPA, 1995c).



RAOs for the Price Pfister property consist of the following:

- Remove, or treat in-situ COC sources in soil that have the potential to leach COCs to groundwater or pose potential significant human health hazards.
- Implement remedial actions at each COC source in soil that will not result in COC concentrations in groundwater that are greater than MCLs, or U.S. EPA Region IX tap water PRGs or other appropriate water quality criteria if no MCLs have been promulgated, for COCs identified at the Site that are prone to leaching.
- Implement remedial actions at each COC source in soil that will not result in a cumulative Hazard Index ("HI") of 1 for non-carcinogenic COCs remaining in soil at the Site.
- Implement remedial actions at each COC source in soil that will not result in a cumulative incremental lifetime cancer risk of  $10^{-5}$  for potential carcinogenic COCs remaining in soil at the Site.
- Implement remedial actions at each COC source in soil that will not result in a blood lead concentration greater than 10 micrograms per deciliter ("µg/dl") at the 99<sup>th</sup> percentile in potentially exposed individuals resulting from the total exposure to lead at the Site and that which is natural occurring in the environment (e.g., air, food, water) as calculated by the DTSC Lead Spread Version 7.0 computer model ("Lead Spread").

## 11.2 LEACHING VALUES AND RBSLs

To aid in achieving the RAOs for the Site, leaching values and RBSLs have been calculated. Leaching values were derived for VOCs and hexavalent chromium to protect potential beneficial uses of groundwater. RBSLs were calculated to identify concentrations of chemicals in soil at the Price Pfister property that may necessitate remedial actions to safeguard potentially exposed populations at the Site. Section 12 summarizes the derivation of leaching values and RBSLs.

It is important to remember that leaching values and RBSLs are guidelines and have not been derived as cleanup levels. COC sources in soil at the Site will be effectively remediated when RAOs are achieved. Section 13 describes how RBSLs were used to identify COC sources in soil and the manner in which leaching values and RBSLs will be



employed to assist in determining whether remedial actions to be implemented at the Site have met RAOs.



## 12. DERIVATION OF LEACHING VALUES AND RBSLs

The derivation of leaching values for protection of groundwater and RBSLs for protection of human health are discussed in this section. Ecological RBSLs were not determined because the Site does not now, and is not anticipated in the future, to sustain any biologically significant populations of plants, soil fauna, wildlife, or aquatic life.

### 12.1 LEACHING VALUES FOR PROTECTION OF GROUNDWATER

The California Water Code requires that each of the nine Regional Boards in the State adopt *Water Quality Control Plans*, which are often called Basin Plans because they apply to waters within specific watershed boundaries or drainage basins. The Basin Plan (RWQCB, 1994) for the Los Angeles area indicates that beneficial uses of groundwater in the San Fernando Valley Groundwater Basins, where the Price Pfister property is located, include municipal, domestic, agricultural, and industrial supply.

Promulgated MCLs or U.S. EPA Region IX PRGs derived for tap water may be appropriate remediation goals to protect the beneficial uses designated in the Basin Plan for groundwater in the vicinity of the Price Pfister property. However, the feasibility of reducing COCs in groundwater beneath the Site to concentrations less than MCLs or PRGs must consider chemicals migrating in groundwater from releases that have occurred at the Holchem/Brenntag facility and other sources of regional groundwater contamination. Leaching values have been calculated that will mitigate potential future impacts to groundwater caused by COCs leaching and volatilizing from soil at the Price Pfister property.

The findings of the RI and previous investigations indicate that leaching values are only required for VOCs and hexavalent chromium because other metals, SVOCs, and petroleum hydrocarbons as oils remaining in the subsurface at the Site are not prone to leaching to groundwater. No leaching value for petroleum hydrocarbons was calculated because petroleum hydrocarbons in soil at the Price Pfister property are characteristic of oils. Laboratory analysis reveals that oils in the subsurface at the Site have petroleum hydrocarbons with carbon chain lengths of C<sub>16</sub> to C<sub>34</sub>. These heavier molecular weight petroleum hydrocarbons do not dissolve appreciably in water that infiltrates through soil at the Price Pfister property. Petroleum hydrocarbons as oil in the form of FHP on groundwater at the Building A Area traveled downward through the unsaturated zone under their own weight and not from leaching. Review of available data in Table 17 does



not show petroleum hydrocarbons associated with FHP to be dissolved in groundwater, which further confirms that no appreciable leaching of petroleum hydrocarbons from soil is occurring. Fate and transport of VOCs and non-VOCs are discussed further in Section 9.

### 12.1.1 Leaching Value Calculations

Leaching values were calculated using U.S. EPA's (1997a) vadose zone leaching computer model ("VLEACH") and Summer's groundwater mixing box model following the methodology described by RWQCB (1996). VLEACH was used to simulate the leaching and vapor migration of VOCs, and the leaching of hexavalent chromium in the unsaturated zone and to predict the flux of VOCs and hexavalent chromium from the unsaturated zone into groundwater over time. The predicted flux was entered into Summer's model to derive the resultant hypothetical groundwater concentration. Leaching values are VOC concentrations in soil that are calculated by the VLEACH and Summer's models not to result in VOC concentrations in groundwater greater than relevant MCLs or PRGs.

No MCL has been established for hexavalent chromium. Consequently, the MCL of 50 µg/L for total chromium was used to calculate the leaching value for hexavalent chromium.

Leaching values were derived for three depth intervals because the depth to groundwater at the Site ranges from approximately 50 to 70 ft bgs and the extent to which VOCs and hexavalent chromium will attenuate before reaching groundwater depends upon the height above the top of the saturated zone that VOCs and hexavalent chromium in soil are located. Greater attenuation will occur the greater the distance VOCs and hexavalent chromium in soil are from groundwater.

As summarized in Tables 28 and 32, the first depth interval for which a leaching value has been derived extends from ground surface to a depth of 3 ft bgs. This depth interval is assumed to correspond to the shallow soil layer at the Site. The remaining two depth intervals essentially divide the subsurface soil between 3 ft bgs and the top of the saturated zone in half in order to calculate leaching values that take into account the differing extent of attenuation that occurs depending upon where VOCs and hexavalent chromium in soil are located above the top of the saturated zone. Leaching values have been derived for the depth intervals from 3 to 30 ft bgs and 30 to 60 ft bgs.



### 12.1.2 Input Parameters

The physical and chemical parameters used in the VLEACH and Summer's models for calculation of risk-based remediation goals are described in Section 12.2.5.3. Input parameters unique to the derivation of leaching values are summarized in Table 24. The surface area of the modeled VOC source in soil was assumed to be 4,000 ft<sup>2</sup>, which is equivalent to the size of the generalized area at Central Building P Area where VOC concentrations in soil may be greater than risk-based remediation goals for direct contact. This VOC source is denoted by cross-hatching on Figure 28. The surface area of the modeled hexavalent chromium source in soil was arbitrarily assumed to be 400 ft<sup>2</sup> because hexavalent chromium is detected only sporadically in soil and no significant source area has been identified.

The Western Regional Climate Center precipitation data from 1971 through 2000 indicates that rainfall in the nearby City of San Fernando averages 12.13 inches annually. Given that the Price Pfister property is covered with buildings and paving that restrict infiltration of surface water, it was assumed that only 15 percent or 1.82 inches of 12.13 inches of annual rainfall absorb into underlying soil.

Although buildings and paving at the Site restrict surface water infiltration, VLEACH modeling was conducted assuming VOC vapors can sink to the top of the saturated zone by density driven flow as well as migrate to ground surface by vapor intrusion through building foundation cracks or gaps caused by penetrations through building foundations. The phenomenon of vapor intrusion and derivation of RBSLs to protect individuals from this potential exposure pathway are described in Section 12.2.

## 12.2 RBSLs FOR PROTECTION OF HUMAN HEALTH

RBSLs are numerical guidelines designed to help with identifying sources of COCs that pose significant human health or environmental risks, and/or to aid in evaluating whether remedial actions implemented to address these identified sources achieve RAOs. Such numerical guidelines can be established in two ways. The first way is to adopt so-called chemical-specific applicable or relevant and appropriate requirements ("ARARs") set forth by existing environmental laws. The second way is to calculate acceptable risk-based COC concentrations. Chemical-specific ARARs do not exist for the majority of identified COCs at the Price Pfister property that adequately consider the scenarios under which individuals may be exposed to COCs at the Site. In the absence of useful chemical-specific ARARs, risk-based concentrations that are protective of human health



have been calculated for all COCs except petroleum hydrocarbons. Risk-based concentrations for petroleum hydrocarbons as oils could not be calculated because no published toxicity values exist for these compounds. The RWQCB (1996) Soil Screening Level of 1,000 mg/kg was adopted as the RBSL for petroleum hydrocarbons as oils in soil at the Site.

According to U.S. EPA (1991a), acceptable risk-based concentrations are derived specifically for a given property. Acceptable risk-based remediation concentrations take into account the COCs that have been identified, media that have been impacted, most likely future land use, and pathways and conditions under which exposure may occur at a particular property. In addition, acceptable risk-based concentrations are calculated by establishing acceptable or target risk levels that will protect potentially exposed populations from the non-carcinogenic and carcinogenic effects of COCs. The procedures and assumptions used to derive RBSLs for the Site are discussed in Sections 12.2.1 through 12.2.6.

#### **12.2.1 Core Site Users to be Protected**

Based on the intended future use as industrial and potential redevelopment of the Site for industrial and/or commercial uses, the primary, on-Site future populations or human receptors that may be potentially exposed to sources of COCs in the subsurface are the following:

##### **Before and After Redevelopment:**

- Tenants that will primarily occupy industrial and/or commercial space, and customers or other visitors that will frequent these spaces (“industrial/commercial workers”).
- Groundskeepers, utility maintenance workers, and other personnel that will maintain the improvements at the Site (“maintenance personnel”).

##### **During Redevelopment:**

- Construction workers that will conduct on-Site earthwork activities as part of redevelopment (“earthwork construction workers”).

The measures implemented to protect core users from sources of COCs in the subsurface at the Site will also safeguard occupants of adjacent properties from these sources.



### 12.2.2 Potential Exposure Pathways

On-Site populations identified in Section 12.2.1 could be potentially exposed to COCs by the complete or potentially complete exposure pathways identified on Figure 64. Each of the pathways shown on this figure is discussed in Sections 12.2.2.1 through 12.2.2.5. RBSLs have been calculated only for those pathways that are judged to be complete or potentially complete for on-Site populations and for which resultant exposure to COCs by the pathways will contribute appreciably to the potential overall risk to the individuals in question.

The identified, potentially complete exposure pathways coupled with the three potentially exposed on-Site populations constitute the exposure scenarios used for determining RBSLs. The on-Site exposure scenarios recognize that groundwater at the Site will not be used for potable supply or other purposes, and that buildings, pavement, or other improvements will continue to cover the Price Pfister property.

#### 12.2.2.1 Vapor Intrusion and Inhalation of VOCs in Soil and Groundwater

Volatile COCs present in soil and groundwater at the Site are VOCs from chlorinated solvents (e.g., PCE, 1,1,1-TCA, TCE) or degradation products of chlorinated solvents (e.g., cis-1,2-DCE, 1,1-DCE). As discussed in Section 7, available analytical results indicate that PCE vapor sunk through the unsaturated zone by the force of gravity. While the dominant tendency of PCE vapor at the Price Pfister property is to move downward, PCE and other VOCs in soil and groundwater at the Site theoretically have the potential to also enter buildings by a mechanism referred to as vapor intrusion. Vapor intrusion is typically assumed to occur through building foundation cracks or gaps caused by penetrations through the building foundations.

Vapor intrusion begins when VOCs partition into soil gas in the subsurface. The magnitude to which these compounds partition or volatilize into soil gas depends on the properties of the chemical. Chlorinated solvents and other VOCs with higher vapor pressures, lower water solubilities, and lower affinities for sorption to soil, partition into soil gas to a greater extent than other chemicals that do not have these properties.

Once in soil gas, some of the VOCs may migrate upwards or laterally by both diffusion and advection. Diffusion refers to the migration of chemicals from areas of high chemical concentration to areas of low chemical concentration. Diffusion is a relatively



slow transport process as compared to advection, which occurs when soil gas containing volatile compounds is induced to migrate by pressure gradients.

Soil gas containing VOCs may migrate against gravity into a building by diffusing through cracks in the foundation slab. Lower pressure inside a building may also sweep soil gas into the building through cracks or gaps by advection. The phenomenon of a lower pressure inside a building is sometimes referred to as a “stack effect.” A stack effect can be caused by:

- Warmer air inside the building, which tends to rise and draw air from the lower parts of the building.
- Wind, which tends to impart a lower pressure inside the building.
- Manufacturing equipment exhausts, which tend to draw air into the building and lower the interior pressure.
- Mechanical ventilation systems, which induce a slight negative pressure inside the building.

Vapor intrusion is the potentially complete exposure pathway that could affect industrial/commercial workers at the Site. Vapor intrusion can also result in migration of VOCs to ground surface where no buildings exist and lead to potential exposures to individuals working outdoors (i.e., earthwork construction workers or maintenance personnel). However, dilution caused by wind renders the potential for outdoor exposure less than the chance of indoor exposure. RBSLs have been calculated for industrial/commercial workers, which will protect all identified future on-Site populations from exposure by the volatilization pathway.

#### 12.2.2.2 Ingestion of and Dermal Contact with COCs in Groundwater

No exposure to contaminated groundwater through ingestion or dermal contact is occurring because no wells exist at the Price Pfister property to provide water for consumption, landscape irrigation, water features, or other purposes. There are no plans to use groundwater at the Site for these purposes. However, to ensure exposure does not take place by these pathways, remedial actions must include institutional controls, alone or in combination with engineering controls. Ingestion of and dermal contact with COCs in groundwater were not considered in calculating RBSLs for industrial/commercial workers because it is assumed that these pathways will be rendered incomplete by institutional and engineering controls that will prevent the use of groundwater at the Site.



Earthwork construction workers and maintenance personnel are unlikely to be exposed to contaminated groundwater during subsurface activities because groundwater is first encountered at 50 to 70 ft bgs at the Site. The ingestion and dermal contact pathways for COCs in groundwater are also assumed incomplete for earthwork construction workers and maintenance personnel.

#### 12.2.2.3 Incidental Ingestion of, Dermal Contact with, and Inhalation of COCs in Soil

On-Site industrial/commercial workers are assumed to have no ingestion of, no dermal contact with, and no inhalation of contaminated soil under their typical workday routines because all contaminated soil will be covered by materials that prevent contact with such soil. However, earthwork construction workers and maintenance personnel may be exposed to COCs through incidental ingestion, dermal contact, and inhalation of contaminated soil and volatile chemicals when digging below existing or new cover materials that will be constructed in connection with redevelopment of the Price Pfister property.

Incidental ingestion occurs primarily through hand-to-mouth contact with contaminated soil and absorption of COCs into the bloodstream. Dermal contact occurs when contaminated soil adheres to exposed skin and COCs are absorbed through the dermis into the bloodstream. Inhalation occurs when wind or human activities suspend contaminated soil into the air, and human receptors subsequently inhale these dirt particles. Earthwork construction workers or maintenance personnel may also potentially inhale VOCs if excavation or disturbance of soil causes increased volatilization of these chemicals within the work zone. RBSLs for direct contact with soil at the Site have been calculated to protect earthwork construction workers and maintenance personnel from exposure by incidental ingestion, dermal contact, and inhalation of contaminated soil or VOCs that become airborne due to contact with such soil. RBSLs calculated to be protective of earthwork construction workers and maintenance personnel are also believed to be protective of industrial/commercial workers because of their limited direct exposure to contaminated soil.

#### 12.2.2.4 Ingestion and Dermal Contact of Surface Water Impacted by COCs

Buildings or pavement currently cover contaminated soil at the Site. The potential for rainfall or non-stormwater related surface flows to become contaminated by soil are limited. The Site will remain covered by buildings, roadways, and pavement after redevelopment. No potentially complete exposure pathways to surface water impacted



by COCs exist now or are likely to exist in the future. RBSLs for surface water have not been calculated.

#### 12.2.2.5 Ingestion of COCs in Homegrown Produce

Ingestion of COCs in homegrown produce is the final pathway that is included by DTSC in Lead Spread. Plants may uptake contaminants in soil that become incorporated in fruits and vegetables that are eventually eaten by humans. This pathway is not considered complete because the anticipated industrial and/or commercial reuse of the Site make growing of produce on-Site highly unlikely in the future. RBSLs including this pathway have not been calculated.

### 12.2.3 Target Risk Levels

Target risk levels have been established to protect individuals from potential non-carcinogenic and carcinogenic effects of potential chronic exposures to COCs identified at the Price Pfister property. A target risk level for lead also has been identified for non-carcinogenic effects. Lead is considered separately from other non-carcinogens because the studies in the literature associate the toxicity of lead with blood lead concentration rather than the applied dose. Hence, a separate modeling approach is utilized to determine an acceptable lead exposure as described in Section 12.2.3.3.

#### 12.2.3.1 Non-Carcinogen Target Risk Level

As defined by U.S. EPA (1989a), non-carcinogenic health effects are organ-specific and are manifested only after reaching a certain chemical dose. As a result, a range of exposures exists from zero to some finite value that can be tolerated with essentially no chance of adverse effects. The upper bound on this tolerance range or "safe dose" is identified as a reference dose ("R/D").

U.S. EPA (1989a) estimates the potential for non-carcinogenic effects by comparing a site-specific exposure level (i.e., estimated daily dose) over a specified time period (i.e., chronic exposure greater than 7 years) with a reference dose derived for a similar exposure period. This ratio of estimated daily dose to toxicity reference dose is called the HI. Consistent with the NCP at 40 CFR §300.430(e)(2)(i)(A)(1), U.S. EPA (1991a) established the standard default non-carcinogenic cumulative target risk level to correspond to a HI of unity (i.e., 1). This target risk level is used to calculate a chemical-specific concentration that equates to the estimated dose from all significant



exposure pathways in a given medium below which it is unlikely, even for sensitive populations, to experience adverse health effects. Where multiple COCs are involved, these non-carcinogenic effects can be assumed to be additive and distributed among several COCs so that the cumulative HI is less than 1.

In accordance with U.S. EPA guidance, the remediation goal for an individual non-carcinogenic COC at the Price Pfister property is based upon a HI of 1. An overarching RAO of a HI of 1 is adopted as the cumulative hazard index for non-carcinogenic COCs at each source area. When multiple non-carcinogenic COCs are identified, the overarching RAO can be met by determining the cumulative hazard index for the area in question, as provided in Section 13.

#### 12.2.3.2 Carcinogen Target Risk Level

For carcinogens, U.S. EPA assumes that a small number of molecular events can evoke changes in a single cell that can lead to uncontrolled cellular proliferation and eventually to a clinical state of disease (U.S. EPA, 1989a). This hypothesized mechanism for carcinogenesis is referred to as “non-threshold” because there is no level of exposure to such a chemical that would not pose a finite probability, however small, of generating a carcinogenic response. No dose is thought to be risk-free. Therefore, in evaluating cancer risks, a safe dose cannot be estimated according to U.S. EPA guidance. Although this issue is subject to scientific debate, U.S. EPA guidance was followed in determining a carcinogenic target risk level for calculating RBSLs for the Price Pfister property.

For carcinogenic effects, U.S. EPA uses a two-part evaluation. In the first part of this evaluation, the chemical is assigned a weight-of-evidence classification, which is related to how convincingly the scientific studies demonstrate that the chemical is carcinogenic to humans. In the second part of this evaluation, a slope factor (“SF”) is calculated, which is a measure of the chemical’s potency. U.S. EPA (1989a) estimates risks as the incremental probability of an individual developing cancer over a lifetime due to any short-term or long-term exposure to the potential carcinogen. This probability is defined as the incremental or excess lifetime cancer risk. The slope factor is expressed as the 95 percent upper confidence limit (“95% UCL”) on the slope of the low-dose linear portion of the dose-response curve as estimated by the multistage linear model. The slope factor directly relates the incremental risk of cancer over a lifetime (i.e., 70 years) to the degree of chemical exposure averaged over a lifetime.

This potential cancer risk can be summed across potential exposures to multiple chemicals, where such exposures are conservatively assumed possible. A scientifically



correct procedure would be to add the risk of each chemical that is believed to have the same manifestations of carcinogenic effect in humans (i.e., target organs). However, as a conservative, health-protective step, the risks due to all potentially carcinogenic COCs are assumed to be additive without consideration of target organs. The target risk level is termed "cumulative" when summed across all COCs and pathways.

The NCP, at 40 CFR §300.430(e)(2)(i)(A), provides a definition of an acceptable residual cancer risk range of  $10^{-6}$  through  $10^{-4}$  for the selection of remedial actions that protect human health and the environment. U.S. EPA (1991b) has stated that remediation is generally not warranted for contaminated property if the cumulative cancer risk is less than  $10^{-4}$ . If remediation is undertaken at such a property, U.S. EPA (1991b) has expressed a preference for cleanups that achieve the lower end of this target risk range. However, U.S. EPA (1991b) acknowledges that remedial actions that achieve reductions in site risk anywhere within the  $10^{-6}$  through  $10^{-4}$  risk range may be acceptable after considering site-specific conditions. The State of California has adopted  $10^{-5}$  as the "no significant risk" level for protecting persons from exposure to chemicals in consumer products and commercial establishments under *The Safe Drinking Water and Toxic Enforcement Act*, which is commonly referred to as Proposition 65.

Given the precedents set by U.S. EPA and the State of California, the remediation goal for an individual carcinogenic COC at the Price Pfister property is based upon an incremental lifetime cancer risk of  $10^{-6}$ . An overarching RAO of a cumulative incremental lifetime cancer risk of  $10^{-5}$  is adopted for carcinogenic COCs at each source area. When multiple carcinogenic COCs are identified, the overarching RAO can be met by determining the cumulative incremental cancer risk for the area in question, as provided in Section 13.

#### 12.2.3.3 Lead Target Risk Level

Ingested or inhaled lead is distributed primarily to the blood, soft tissue (e.g., bone marrow, liver, and brain), and mineralizing tissue (e.g., bones and teeth) of the body. Lead interferes with normal cell function and with a number of physiologic processes, including damage to the central nervous system, inhibition of the body's ability to make hemoglobin, disruption of the endocrine system that may lead to impaired tooth and bone development, and damage to the kidneys (California Department of Health Services, 1997).

The United States Department of Health and Human Services, Agency for Toxic Substances and Disease Registry ("ASTDR") also indicates that lead readily crosses the



placenta. According to ATSDR (1995), lead not only affects the viability of the fetus, but development as well. Development consequences of prenatal exposure to low levels of lead include reduced birth weight and premature birth.

Reports have indicated lead to be a teratogen and carcinogen in animals. However, studies in humans have failed to show a relationship between lead exposure concentrations and congenital malformations, and the association of lead levels and cancer observed in humans remains uncertain (ATSDR, 1995). Federal and state health agencies have focused on low-level environmental lead exposures where the primary health effect to be avoided is impaired learning or cognitive capacity in exposed children or adults.

Blood lead concentration is an integrated measure of internal dose resulting from the total exposure of releases of lead at a site and naturally occurring concentrations of lead in the environment and foods consumed. DTSC (1996) has established that the concentration of concern for lead in blood is 10 µg/dl at the 99<sup>th</sup> percentile (i.e., a one percent chance that blood lead concentrations will be greater than 10 µg/dl) for potentially exposed populations. The 99<sup>th</sup> percentile is believed to be protective because it establishes an upper bound level for lead exposure that is akin to U.S. EPA's reasonable maximum exposure ("RME") approach (U.S. EPA, 1989a). Determination of a RBSL for lead in soil for potentially exposed earthwork construction workers and maintenance personnel is discussed in Section 12.2.4.2.2.

#### **12.2.4 RBSL Calculations**

RBSLs were calculated for COCs using U.S. EPA (2000a) and DTSC (2000) computer models, or hazard and risk equations based on those presented in U.S. EPA (1991a, 1989a) and DTSC (1999, 1996) guidance documents.

##### **12.2.4.1 RBSLs to Protect Industrial/Commercial Workers**

Inhalation of VOCs by vapor intrusion is the only potentially complete exposure pathway for industrial/commercial workers. RBSLs to protect industrial/commercial workers against vapor intrusion were derived using the U.S. EPA (2000a) "GW-ADV" version of the Johnson and Ettinger vapor intrusion computer model ("J&E").

J&E modeling was conducted only for those compounds detected in soil or groundwater at the Site assumed to be volatile. Volatile compounds are defined as those chemicals that have a Henry Law constant greater than  $10^{-5}$  atm-m<sup>3</sup>/mol and a molecular weight less



than 200 consistent with the criteria used by U.S. EPA Region IX (2000b) in its derivation of PRGs. J&E modeling also assumed that the sources of VOCs in soil were finite, which is consistent with available data for the Site. Table 29 summarizes RBSLs to protect industrial/commercial workers from vapor intrusion. Definitions and values of J&E input parameters are described in Section 12.2.5.

#### 12.2.4.2 RBSLs to Protect Earthwork Construction Workers and Maintenance Personnel

Direct contact with contaminated soil through ingestion, dermal contact, and inhalation are the potentially complete pathways for earthwork construction workers and maintenance personnel. RBSLs for COCs other than lead are described in Section 12.2.4.2.1. RBSLs for lead were calculated following the modeling approach described in Section 12.2.4.2.2 because of the different toxicological behavior of lead.

##### *12.2.4.2.1 RBSLs for COCs Other Than Lead*

RBSLs based on non-carcinogenic (“RBSL<sub>nc</sub>”) and carcinogenic effects (“RBSL<sub>c</sub>”) for COCs other than lead were calculated using the following equations:

Equation 12-1 Non-Carcinogenic RBSL

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$$\text{RBSL}_{nc} = \frac{\text{RfD} \times \text{Target HI of 1}}{(\text{Ingestion} + \text{Dermal} + \text{Inhalation})}$$

Equation 12-2 Carcinogenic RBSL

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$$\text{RBSL}_c = \frac{\text{Target Risk Level of } 10^{-6}}{\text{SF} \times (\text{Ingestion} + \text{Dermal} + \text{Inhalation})}$$

Ingestion, Dermal, and Inhalation terms are estimates of exposure that may result from an adult swallowing contaminated soil, absorbing COCs through the skin, and inhaling particulates and VOCs. Exposure to COCs by these routes for earthwork construction workers and maintenance personnel were estimated from the following equations:



Equation 12-3 Ingestion Term

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$$\text{Ingestion} = \frac{\text{IR}_{\text{soil}} \times \text{EF} \times \text{ED} \times 10^{-6} \text{ kg/mg}}{\text{BW} \times \text{AT} \times 365 \text{ days/yr}}$$

Equation 12-4 Dermal Term

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$$\text{Dermal} = \frac{\text{SA} \times \text{AF} \times \text{ABS} \times \text{EF} \times \text{ED} \times 10^{-6} \text{ kg/mg}}{\text{BW} \times \text{AT} \times 365 \text{ days/yr}}$$

Equation 12-5 Inhalation Term

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$$\text{Inhalation} = \frac{\text{IR}_{\text{air}} \times \text{EF} \times \text{ED} \times (1/\text{VF} + 1/\text{PEF})}{\text{BW} \times \text{AT} \times 365 \text{ days/yr}}$$

Tables 30 and 31 summarize RBSLs to protect earthwork construction workers and maintenance personnel from direct contact with contaminated soil. Definitions and values of input parameters in the above equations are described in Section 12.2.5.

*12.2.4.2.2 RBSL for Lead*

The potential lead RBSL for earthwork construction workers and maintenance personnel that may contact lead-impacted soil at the Site were calculated using Lead Spread. A RBSL was calculated such that the lead concentration in the blood of potentially exposed populations was less than 10 µg/dl at the 99<sup>th</sup> percentile. The goal takes into account the potential intake of lead from releases at the Site and lead naturally occurring in air, food, tap water, and soil, otherwise assumed to be typical human exposure to lead.

Lead Spread default input parameters of 0.028 µg/m<sup>3</sup> and 1.9 kg food/day (at 3.1 µg lead/kg food) were used to account for lead naturally occurring in air and food, respectively, for adults. The concentration of lead in tap water was established as 15 µg/L. A value of 15 µg/L is the DTSC default input parameter, which is based on the federal action level for lead in municipal drinking water supply. Given the continued



industrial uses or potential commercial uses for the Price Pfister property, the dietary source of lead assumes that no produce will be grown on the Site. The lead RBSL was calculated assuming an adult occupational worker exposure frequency of 5 days per week, as specified by DTSC (1996). Exposures of earthwork construction workers and maintenance personnel to ambient concentrations of lead in air, water, and food were assumed equivalent to DTSC default factors, with the exception of the rate of soil ingestion.

The soil ingestion rate was increased from the default value of 50 mg/day to 240 mg/day to account for the higher soil exposure that is assumed for earthwork construction workers and maintenance personnel in calculating RBSLs for COCs other than lead. Lead Spread uses median estimates and then considers the output distribution to assess an RME exposure. Therefore, with a maximum value of 480 mg/day being used in the calculation of RBSLs for other COCs, a value of 240 mg/day is used in Lead Spread as a reasonable median value for construction workers and maintenance personnel. This assumption is consistent with the instructions included with Version 2.0 of Lead Spread.

#### **12.2.5 Input Parameters**

Input parameters used to calculate RBSLs for the complete or potentially complete exposure pathways at the Site illustrated on Figure 64 are discussed in Sections 12.2.5.1 through 12.2.5.3.

##### **12.2.5.1 Human Health Toxicity Values**

Following the hierarchy established in the DTSC (1999) PEA Guidance Manual, toxicity values used to calculate RBSLs were obtained from the following references in the order listed:

- Non-carcinogenic reference doses from OEHHA (2002a) *Technical Support Document for the Determination of Non-Cancer Chronic Reference Exposure Levels* and carcinogenic slope factors from OEHHA (2002b) *California Cancer Potency Factors*.
- U.S. EPA's computerized Integrated Risk Information System ("IRIS").
- U.S. EPA's Health Effects Assessment Summary Tables ("HEAST"), dated July 1997.



- U.S. EPA's National Center for Environmental Assessment ("NCEA"), Draft Risk Assessment Issue Papers for individual chemicals.
- U.S. EPA Region IX PRG tables (U.S. EPA, 2002b).

OEHHA's technical documents and web site represent the agency's most current stance on non-carcinogenic and carcinogenic toxicity values for risk assessments in California. U.S. EPA maintains the IRIS computerized database. Toxicity values on IRIS have undergone review and verification by U.S. EPA program offices before publication. Toxicity values were obtained from HEAST if none were available from OEHHA or IRIS. HEAST is not updated as regularly as IRIS and may contain interim toxicity values. Toxicity values obtained from NCEA have not been verified by U.S. EPA and are considered provisional. Non-carcinogenic and carcinogenic toxicity information for identified COCs, including the source of the information, is shown on Tables 26 and 27, respectively. If no toxicity value was available for one of the exposure routes for a particular chemical, the toxicity value from the other exposure route was used in the calculations (i.e., "route-to-route extrapolation") and footnoted as such on Tables 26 and 27. No reference dose for phenanthrene was available for any exposure route. At the suggestion of U.S. EPA Superfund Technical Support staff, the reference dose for anthracene was used, which is a structurally similar surrogate compound.

#### 12.2.5.2 Human Health Exposure Parameters

In accordance with the DTSC PEA Guidance Manual, the same exposure parameter values were used to calculate non-carcinogenic and carcinogenic RBSLs except for the averaging time. Averaging time is 70 years for carcinogenic risk, but averaging time is set equal to the exposure duration for non-carcinogenic hazards, in accordance with the DTSC PEA Guidance Manual.

Table 25 summarizes human health exposure parameters. Except for the exposure frequency and duration for earthwork construction workers and maintenance personnel directly contacting soil at the Site, exposure parameters are default factors obtained from U.S. EPA or DTSC guidance documents or are calculated based on published values for the potentially exposed populations identified at the Site. The exposure frequency and duration for earthwork construction workers and maintenance personnel directly contacting soil at the Site are the only parameters where default factors do not exist and professional judgment was used to estimate values.



Exposure frequency is the number of days per year that an individual is likely to engage in trenching or other activities that involve disturbance and contact with soil (e.g., foundation construction, landscape installation, and utility installation and repairs). The exposure frequency for direct contact with soil or earthwork is assumed to be 250 days per year for earthwork construction workers and 12 days per year for maintenance personnel. It is assumed that earthwork construction workers are always engaged in earthwork while at the Site. Maintenance personnel, on the other hand, are assumed to perform activities that do not involve direct contact of soil at the Site for 238 of the 250 workdays per year spent at the Site.

Exposure duration is the length of time in years during which an individual performs work at the Site. The exposure duration is assumed to be 9 months for earthwork construction workers and 25 years for maintenance personnel. Additionally, exposure parameters such as skin surface area exposed to soil and soil-to-skin adherence factor for the maintenance personnel are assumed equivalent to those of earthwork construction workers for the 12 days per year that maintenance personnel spend engaged in earthwork. For the remaining 238 days per year when maintenance worker perform activities that do not involve direct contact of soil, the exposure parameters of the maintenance personnel are assumed equivalent to those of industrial/commercial workers.

#### 12.2.5.3 Physical and Chemical Parameters

Physical parameters, such as soil properties, depth to groundwater, climatic features, and building characteristics used to calculate RBSLs are shown in Table 24. Whenever possible, physical parameters were based upon Site-specific information or default values obtained from U.S. EPA (2000a, 1989a) or DTSC (1999).

Chemical parameters were compiled from two references. Henry Law constants were obtained from Gossett (1987) or Montgomery (2000). Organic carbon partition coefficients, aqueous solubilities, diffusion coefficients, and other physical parameters were obtained from Montgomery (2000).

#### 12.2.6 **Compilation of RBSLs**

Tables 29, 30, and 31 summarize the calculated non-carcinogenic, carcinogenic, and lead RBSLs for industrial/commercial workers, earthwork construction workers, and maintenance personnel, respectively, at the Price Pfister property. Except for petroleum hydrocarbons and lead, RBSLs adopted for the Site in Table 32 are the lowest values of



RBSL<sub>nc</sub> and RBSL<sub>c</sub> for each COC that protect all defined potentially exposed populations consistent with complete or potentially complete pathways shown on Figure 64.

Because no published toxicity values exist for petroleum hydrocarbons as oils, the direct contact RBSL for petroleum hydrocarbons is assumed equivalent to the Soil Screening Level of 1,000 mg/kg established by RWQCB (1996) for petroleum hydrocarbons with carbon chain lengths of C<sub>13</sub> to C<sub>22</sub> in soil that is 20 to 150 feet above the groundwater surface. This Soil Screening Level has been developed for a range of petroleum hydrocarbons similar to the lighter fraction of petroleum hydrocarbons found in oils at the Price Pfister property. Laboratory analysis reveals that oils in the subsurface at the Site have petroleum hydrocarbons with carbon chain lengths of C<sub>16</sub> to C<sub>34</sub>.

Lead Spread calculated lead concentrations of 740 mg/kg in soil at the Site could potentially cause blood lead to increase to 10 µg/dl in earthwork construction workers and maintenance personnel based upon the values of exposure parameters and frequencies assumed. A lead concentration of 740 mg/kg in soil has been adopted as the direct contact RBSL for lead in soil at the Site.



### **13. USE OF LEACHING VALUES AND RBSLs**

Table 32 summarizes leaching values and RBSLs for the Price Pfister property that are intended to protect groundwater quality and future Site users, respectively. Sections 13.1 and 13.2 explain the use of these numerical guidelines for the Price Pfister property.

#### **13.1 USE OF DIRECT CONTACT RBSLs TO IDENTIFY POTENTIAL COC SOURCES**

In Section 7, COC concentrations measured in soil at the Price Pfister property were compared to the RBSLs for direct contact with soil adopted for the Site to delineate potential COC sources. Direct contact RBSLs for VOCs are appropriate criteria for identifying VOC sources in soil. VOC leaching values and RBSLs for vapor intrusion are often too low to distinguish between VOC concentrations that reflect a source as opposed to those that arose from VOCs migrating from a source.

VOC leaching values and RBSLs for vapor intrusion derived for soil below 3 ft bgs are at least an order of magnitude lower than the goals for direct contact (Table 32). The SVE systems have recovered PCE in soil gas that had migrated from VOC sources at the Central Building P Area and Oil Staging Area. Review of PCE soil gas contours in December 2002 (Figure 10) shows that the SVE systems have reduced PCE in soil gas to the same areas identified as sources through comparison of measured VOC concentrations in soil with RBSLs for direct contact (Figures 28 and 41), thereby confirming that these two areas are the only significant VOC sources in soil at the Site.

#### **13.2 USE OF RBSLs TO DETERMINE COMPLETION OF REMEDIAL ACTIONS**

Remedial actions are necessary to address COC sources identified in Section 7. Upon implementing remedial actions that involve the removal or treatment of COC sources, the residual concentrations of COCs in soil below building foundations or pavement will be compared to the RBSLs for direct contact summarized in Table 32.

Removal or treatment of impacted soil at each source area may not meet individual RBSLs derived for the soil depth intervals specified in Table 32. It may be inevitable that residual concentrations of COCs at certain areas are greater than individual RBSLs.



In such cases, remedial actions involving removal or treatment of impacted soil at a given source area will be judged to be complete for non-VOCs when all COCs remaining in soil do not present hypothetical risks associated with direct contact of soil that are greater than a cumulative HI of 1 and a cumulative incremental lifetime cancer risk of  $10^{-5}$ .

For VOCs, such remedial actions must achieve these cumulative risks for vapor intrusion and direct contact. Remedial actions to address VOCs will also be designed to meet leaching values for protection of groundwater quality summarized in Table 32. VOC leaching values and RBSLs are expressed in soil and soil gas concentrations. Both goals afford equivalent protection of human health and groundwater quality, and remediation actions can be determined to be complete based upon either the analytical results of either soil or soil gas samples. Leaching values for VOCs do not take into account possible recontamination of soil from VOCs volatilizing from groundwater. VOCs are migrating in groundwater onto the Price Pfister property due to chemical releases at Holchem/Brenntag and potentially other nearby facilities. Attainment of leaching values may not be feasible given regional groundwater contamination.

In addition, certain RBSLs might be below the range of typical analytical method reporting limits for VOCs and hexavalent chromium. In such cases, the RBSLs are the desirable cleanup levels, but attainment can only be determined at the standard analytical method reporting limits. Actual analytical method reporting limits determining attainment with RBSLs will be established at the time of confirmation sampling and will consider such factors as whether matrix interferences exist in the samples that necessitate raising the standard analytical method reporting limits.

If warranted, cumulative HIs and cancer risks of residual COCs will be calculated after removing or treating impacted soil to ensure that residual COCs in soil and soil gas are not present at concentrations that pose unacceptable potential human health hazards. Cumulative HIs and carcinogenic risks will be calculated using the RBSLs for potentially exposed populations and representative concentrations ("RCs") of all COCs detected in soil or soil gas at a given source area. RCs will be based upon appropriate arithmetic or geometric mean values, the 95% UCLs on the appropriate means, or the maximum COC concentrations detected at the area in question. The maximum detected COC concentrations can be used as the RCs when there are insufficient data points.

Cumulative HIs and cumulative cancer risks will be calculated for vapor intrusion and inhalation of VOCs by industrial/commercial workers, and for direct contact of soil by earthwork construction workers and maintenance personnel if needed to verify that remedial actions implemented at a given source area at the Site achieve the RAOs stated



in Section 11. Cumulative HIs and cumulative cancer risks for the aforementioned exposure scenarios will be calculated using the following equations:

Equation 13-1 Cumulative Non-Carcinogenic Risk

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$$\text{Cumulative HI} = \left( \frac{RC_1}{RBSL_{nc1}} \right) + \left( \frac{RC_2}{RBSL_{nc2}} \right) + \dots \left( \frac{RC_N}{RBSL_{ncN}} \right)$$

where:

- $RC_{1,2,...N}$  = representative concentration of each COC at a given source area
- $RBSL_{nc1,2,...N}$  = non-carcinogenic RBSL for vapor intrusion or direct contact for each COC summarized in Tables 29 through 31

Equation 13-2 Cumulative Cancer Risk

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$$\text{Cumulative Cancer Risk} = \left( \frac{RC_1}{RBSL_{c1}} \times 10^{-6} \right) + \left( \frac{RC_2}{RBSL_{c2}} \times 10^{-6} \right) + \dots \left( \frac{RC_N}{RBSL_{cN}} \times 10^{-6} \right)$$

where:

- $RC_{1,2,...N}$  = representative concentration of each COC at a given source area
- $RBSL_{c1,2,...N}$  = carcinogenic RBSL for vapor intrusion or direct contact for each COC summarized in Tables 29 through 31



## 14. CONCLUSIONS

Available data and information compiled from the RI and previous investigations are adequate for purposes of assembling and evaluating remedial actions to mitigate chemicals of concern beneath the Price Pfister property. It is recommended that a remedial action plan be prepared. The impacts of chemical releases at Holchem/Brenntag, D&M Steel, and other nearby facilities on groundwater quality have not been adequately assessed.



## 15. REFERENCES

AG&M. 10 December 2001. *Third Quarter 2001 Groundwater Monitoring Report, Brenntag West, Inc. (Former Holchem, Inc. / Chase Chemical) Property.*

American Etching and Manufacturing. 13 November 1995. *Well Investigation Program ("WIP") Facility Audit Report.*

Bouwer, E.J. 1994. *Bioremediation of Chlorinated Solvents Using Alternate Electron Acceptors.* Handbook of Bioremediation. CRC Press, L.L.C., Boca Raton, Florida. pp. 149-175.

C. Johnson Environmental. June 1999. *Closure Report for the Removal of Underground Storage Tanks and Report of the Results of Additional Investigations at the Holchem Pacoima Site.*

California Division of Mines and Geology. 1975. *San Fernando, California, Earthquake of 9 February 1971*, Gordon B. Oakeshott, Editor, Bulletin 196.

California Environmental. July 1999. *Summary of Quarterly Groundwater Monitoring and Sampling, Holchem Site, 13546 Desmond Street, Pacoima, California.*

California Environmental. 13 December 1995. *Soil Vapor Survey, Holchem, Inc.*

California Environmental. 20 July 1990. *Preliminary Characterization of Hydrocarbon Contamination in Soil and Groundwater, Holchem, Inc.*

CET Environmental Services, Inc. May 1993. *Soil Remediation Closure Report, 11035 Sutter Avenue, Pacoima, California.*

Chiou, C.T. 1989. *Theoretical Considerations of the Partition Uptake of Nonionic Organic Compounds by Soil Organic Matter.* Reactions and Movement of Organic Chemicals in Soil. Soil Science Society of America. Special Publication No. 22. pp. 1-29.

California Department of Health Services. September 1997. *Medical Guidelines, Occupational Lead Poisoning Prevention Program and Hazard Evaluation System and Information Service.* Occupational Health Branch.



Cohen R.M and J.W. Mercer. 1993. *DNAPL Site Evaluation*. C.K. Smoley.

DTSC. 20 October 2000. *LeadSpread, Version 7.0*.

DTSC. June 1999. *Preliminary Endangerment Assessment Guidance Manual*. Second Printing.

DTSC. 30 July 1997a. *Preliminary Endangerment Assessment / Site Inspection*. Price Pfister, Pacoima, California.

DTSC. February 1997b. *Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities*.

DTSC. August 1996. *Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities*.

Edgington Oil Company, Inc. 1985. Product Data Sheet for Edgiflex – 300.

EKL. 11 July 2002a. *Closure Plan for Permitted Waste Treatment Units, Price Pfister Facility, 13500 Paxton Street, Pacoima, California*.

EKL. 12 June 2002b. *Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study, Price Pfister Facility, 13500 Paxton Street, Pacoima, California*.

EKL. 29 April 2002c. *Results from Site-Wide Investigation, Price Pfister Facility, 13500 Paxton Street, Pacoima, California*.

EKL. 31 January 2002d. *Work Plan for Additional Investigations, Price Pfister Facility, 13500 Paxton Street, Pacoima, California*.

EKL. 15 January 2002e. *Progress Report for July to December 2001, Price Pfister Facility, 13500 Paxton Street, Pacoima, California*.

EKL. 12 May 2001a. *Results of Phase II Soil Sampling, Price Pfister Facility, 13500 Paxton Street, Pacoima, California*.

EKL. 11 May 2001b. *Request for a No Further Action Letter Regarding Five Former Underground Storage Tanks, Price Pfister, 13500 Paxton Street, Pacoima, California*.



EKI. 5 April 2001c. *Phase I Environmental Site Assessment, Price Pfister Facility, 13500 Paxton Street, Pacoima, California.*

EKI. 31 January 2001d. *Free Hydrocarbon Product Recovery - July Through December 2000, Price Pfister Facility, 13500 Paxton Street, Pacoima, California.*

EKI. 27 July 2000. *Free Hydrocarbon Product Recovery - March Through June 2000, Price Pfister Facility, 13500 Paxton Street, Pacoima, California.*

EKI. 25 August 1999. *Report on Installation of Two FHP Recovery Wells and Four Groundwater Monitoring Wells at the Price Pfister Facility, 13500 Paxton Street, Pacoima, California.*

EKI. 15 June 1998. *Request for Underground Storage Tank Closure, Price Pfister Facility, 13500 Paxton Street, Pacoima, California.*

Enviropro, Inc. 7 July 1989. *Hazardous Materials Underground Storage Closure Report.* Letter from John J. Kornuc, Ph.D., Project Engineer, and Michael M. Uziel, Ph.D., President, to Frank Campanile, Price Pfister, Inc.

Enviropro, Inc. 5 April 1988. *Hazardous Materials Underground Storage Closure Report.* Letter from Richard Walls, Sr. Environmental Engineer, to Alberto Jaramillo, Facilities Engineer Manager, Price Pfister, Inc.

Enviropro, Inc. 25 June 1986. *Progress Report for Investigations of Chemical Detections Around Underground Storage Tanks or Associated Piping.*

Enviropro, Inc. 4 September 1984. *Final Report, Removal of Seven Underground Tanks and Soil Testing at Price Pfister, Inc., Pacoima, CA.*

Falta, R.W., I. Javandel, K. Pruess, and P.A. Witherspoon. October 1989. *Density-Driven Flow of Gas in the Unsaturated Zone Due to the Evaporation of Volatile Organic Compounds.* Water Resources Research. Vol. 25, No. 10. pp. 2159-2169.

Geomatrix Consultants. 26 June 2000. *Remedial Investigation/Feasibility Study Workplan, Former Chase Chemical Site, 13540 and 13546 Desmond Street, Pacoima, California.*



Gosset, J. M. 1987. *Measurement of Henry's Law Constants for C1 and C2 Chlorinated Hydrocarbons*. Environmental Science and Technology. Vol. 21. pp. 202-208.

Harding Lawson Associates. 18 May 1993. *Evaluation of Threat to Groundwater, Chevron Service Station No. 5108, 1113 San Fernando Road, Pacoima, California*.

Harding Lawson Associates. 9 August 1989. *Site Assessment Report, Chevron Service Station No. 5108, 1113 San Fernando Road, Pacoima, California*.

Hartman, B. February 1998. *The Downward Migration of Vapors*. LUSTLine. New England Water Pollution Control Commission. Bulletin 28.

Howard, P.H. 1990. *Handbook of Environmental Fate and Exposure Data for Organic Chemicals, Volume II: Solvents*. Lewis Publishers, Chelsea, Michigan.

James M. Montgomery, Inc. December 1992. *Remedial Investigation of Groundwater Contamination in the San Fernando Valley, Remedial Investigation Report*.

Kinworthy / Patton Environmental, Inc. 23 September 1996a. *Results of Supplemental Soil Gas Sampling, American Etching & Manufacturing*.

Kinworthy / Patton Environmental, Inc. 14 June 1996b. *Results of Soil Gas Survey, American Etching & Manufacturing*.

LADHS. 24 April 1984. *Report of Investigation, 13748 Desmond Street*.

Mackay, D. and W.Y. Shiu. 1981. *A Critical Review of Henry's Law Constants for Chemicals of Environmental Interest*. Journal of Physical and Chemical Reference Data. Vol. 10, No. 4.

Mendoza, C.A. and T.A. McAlary. 1990. *Modeling of Ground-Water Contamination Caused by Organic Solvent Vapors*. Ground Water. Vol. 28, No. 2. pp. 199-206.

Montgomery, J.H. 2000. *Third Edition Groundwater Chemicals Desk Reference*. CRC Press, L.L.C., Boca Raton, Florida.

OEHHA. September 2002a. *Technical Support Document for the Determination of Non-Cancer Chronic Reference Exposure Levels*. (with web site updates through September 2002).



OEHHA. September 2002b. *California Cancer Potency Values*. (with web site updates through September 2002).

Personal communication with Richard Kagel, K-Prime, Inc. Laboratory Director. September 2002.

Price Pfister. 30 October 1995. *Site Audit Report: Price Pfister, Inc., 13500 Paxton Street, Pacoima, CA*.

Price Pfister. 29 April 1977. *Price Pfister Plant Write-up*.

RWQCB. 24 December 2002. *Interim Soil Gas Screening Levels for Evaluation of Potential Indoor-Air Impacts and Request for Comments*. Memorandum from Roger Brewer, Toxics Cleanup Division, SF Bay Region RWQCB, to interested parties.

RWQCB. 1997. *Interim Guidelines for Active Soil Gas Investigations*. Los Angeles Region.

RWQCB. May 1996. *Interim Site Assessment and Cleanup Guidebook*. Los Angeles Region.

RWQCB. 13 June 1994. *Water Quality Control Plan, Los Angeles Region*. Los Angeles Region.

South Coast Air Quality Management District. 29 September 1970. *Permit No. P40225: Baron Degreaser*.

Schaap, M.G and F.J. Leij. 1998. *Database Related Accuracy and Uncertainty of Pedotransfer Functions*. Soil Science. Vol. 163. pp. 765-779.

Schwille, F. 1988. *Dense Chlorinated Solvents in Porous and Fractured Media: Model Experiments*. Translated by James F. Pankow. Lewis Publishers, Chelsea, Michigan.

Setmire, J.G. 1985. *A Conceptual Ground-Water-Quality Monitoring Network for San Fernando Valley, California*, USGS Water-Resources Investigations Report 84-4128.

Spectrum Engineering, Inc. 28 June 1999. *Soil Analysis Report*.



State Water Rights Board. July 1962. *Report of Referee, The City of Los Angeles, A Municipal Corporation, Plaintiff, vs. City of San Fernando, a Municipal Corporation, et. al., Defendants.*

Thorne Environmental, Inc. 1 May 1990. *Groundwater Assessment and Vapor Extraction Treatability Study, 11035 Sutter Avenue, Pacoima, California.*

Thomson, N.R., J.F. Sykes, and D. Van Vilet. 1997. *A Numerical Investigation into Factors Affecting Gas and Aqueous Phase Plumes in the Subsurface.* Journal of Contaminant Hydrology. Vol. 28. pp. 39-70.

ULARA. July 2002a. *Upper Los Angeles River Area Watermaster, Ground Water Pumping and Spreading Plan, 2001-2006 Water Years.*

ULARA. May 2002b. *Watermaster Service in the Upper Los Angeles River Area, Los Angeles County, 2000-2001 Water Year, October 1, 2000-September 30, 2001.*

United States Department of Health and Human Services. 1 September 1995. *Case Studies in Environmental Medicine: Lead Toxicity.* Agency for Toxic Substances and Disease Registry.

U.S. EPA. October 2002a. Integrated Risk Information System Computerized Database. <http://www.epa.gov/iris>.

U.S. EPA. 1 October 2002b. *EPA Region 9 Preliminary Remediation Goals Table* and supporting documentation.

U.S. EPA. December 2000a. *User's Guide for Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion into Buildings (Revised).*

U.S. EPA. 1 November 2000b. *Region 9 Preliminary Remediation Goals (PRGs) 1999.* Memorandum from Stanford J. Smucker, Ph.D., Regional Toxicologist (SFD-8-B), Technical Support Team to PRG Table Mailing List.

U.S. EPA. July 2000c. *Engineered Approaches to In Situ Bioremediation of Chlorinated Solvents: Fundamentals and Field Applications.* Office of Solid Waste and Emergency Response. EPA 542-R—00-008.



U.S. EPA. 14 October 1998a. *Management of Remediation Waste Under RCRA*. Memorandum from Timothy Fields, Jr., Acting Assistant Administrator for Solid Waste and Emergency Response, and Steven A. Herman, Assistant Administrator for Enforcement and Compliance Assurance, to RCRA/CERCLA Senior Policy Managers, Regional Counsels.

U.S. EPA. September 1998b. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*. Office of Research and Development. EPA/600/R-98/128.

U.S. EPA. 1997a. *VLEACH, A One-Dimensional Finite Difference Vadose Zone Leaching Model, Version 2.2*. Office of Research and Development, Center for Subsurface Modeling Support.

U.S. EPA. August 1997b. *Rules of Thumb for Superfund Remedy Selection*. Office of Solid Waste and Emergency Response. EPA 540-R-97-013.

U.S. EPA. July 1997c. *Health Effects Assessment Summary Tables*.

U.S. EPA. December 1995a. *Ground Water Issue: Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*.

U.S. EPA. December 1995b. *Quick Reference Advisory – Use of Low-Flow Methods for Groundwater Purging and Sampling: An Overview*.

U.S. EPA. 25 May 1995c. *Land Use in the CERCLA Remedy Selection Process*. Memorandum from Elliot P. Laws, Assistant Administrator. Office of Solid Waste and Emergency Response. OSWER Directive No. 9355.7-04.

U.S. EPA. May 1993a. *Behavior and Determination of Volatile Organic Compounds in Soil – A Literature Review*. Office of Research and Development. EPA/600/R-93/140.

U.S. EPA. March 1993b. *San Fernando Valley Superfund Sites, Fact Sheet Number 10*.

U.S. EPA. October 1992a. *Ground Water Issue: Behavior of Metals in Soil*. Office of Solid Waste and Emergency Response. EPA/540/S-92/018.

U.S. EPA. April 1992b. *Guidance for Data Useability in Risk Assessment (Part A), Final*. Office of Emergency and Remedial Response. Publication 9285.7-09A.



U.S. EPA. 1991a. *Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals), Interim*. Office of Solid Waste and Emergency Response. Publication: 9285.7-01B.

U.S. EPA. 22 April 1991b. *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*. Memorandum from Don R. Clay, Assistant Administrator. Office of Solid Waste and Emergency Response. OSWER Directive No. 9355.0-30.

U.S. EPA. March 1991c. *Ground Water Issue: Dense Nonaqueous Phase Liquids*. Office of Solid Waste and Emergency Response. EPA/540/4-91-002.

U.S. EPA. December 1989a. *Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual (Part A), Interim*. Office of Solid Waste and Emergency Response. EPA/540/1-89/002.

U.S. EPA. 15 December 1989b. *Risk Assessment Guidance for Superfund Human Health Risk Assessment*. U.S. EPA Region IX Recommendations (Interim Final).

U.S. EPA. October 1988. *Guidance for Conducting Remedial Investigations and Feasibility Under CERCLA, Interim Final*. Office of Solid Waste and Emergency Response. EPA 540/G-89/004.

USGS. 1988. *Topographic Map, San Fernando Quadrangle, 7.5 Minute Series*. United States Department of the Interior.

USGS 1981. *Earthquake Hazards Associated with the Verdugo-Eagle Rock and Benedict Canyon Fault Zones, Los Angeles County, California*. Open File Report No. 81-296. United States Department of the Interior.

Verschueren, K. 1983. *Handbook of Environmental Data on Organic Chemicals*. 2<sup>nd</sup> Edition. Van Nostrand Reinhold, New York, New York.

Vogel, T.M. and McCarty, P.L. 1987. *Rate of Abiotic Formation of 1,1-Dichloroethylene from 1,1,1-Trichloroethane in Groundwater*. Journal of Contaminant Hydrology. Vol. 1.



Wayne Perry, Inc. 5 January 1996. *Quarterly Status Report – December 1995, Vapor Extraction System Operation and Maintenance, Chevron Service Station No. 9-5108, 1113 San Fernando Road, Pacoima, California.*



**Table 1**  
**Summary of Former Underground Storage Tanks**  
Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Tank No. (1)	Size	Contents	Date Installed	Date Removed	Closure Obtained
<b>Building A</b>					
Tank 1	4,000 gal	Pale Oil	1954	1984	No (2)
Tank 10	4,000 gal	Pale Oil	1954	1984	No (2)
<b>Oil Staging Area</b>					
Tank 2	1,000 gal	Used Oil	1971	1984	No (3)
Tank 25	1,000 gal	Hydraulic Oil	1971	1984	No (3)
Tank 26	1,000 gal	Hydraulic Oil	1971	1984	No (3)
Tank 27	1,000 gal	Linseed Oil	1971	1984	No (3)
<b>Other Site Locations</b>					
Tank 3 (Near Building O)	40,000 gal	Fuel Oil No. 2	1975	1989	Yes
Tank 4 (Near Building O)	6,000 gal	Unleaded Gasoline	1979	1988	Yes
Tank 5 (Near Building O)	6,000 gal	Unleaded Gasoline	1979	1988	Yes
Tank 29 (North of Building B)	1,200 gal	Sulfur Cutting Oil	1958	1984	No (3)

**Abbreviations**

gal      gallons

**Notes**

- (1) The Price Pfister tank numbering system included both underground and above ground tanks. Tank numbers not listed were for above ground tanks.
- (2) After tank removal, additional investigation was performed in 1986, as requested by the Regional Water Quality Control Board, Los Angeles Region. After completion of this investigation, groundwater monitoring was initiated. Subsequently, free hydrocarbon product recovery was started and is ongoing.
- (3) After tank removal, additional investigation was performed in 1985 and 1986, as requested by the Regional Water Quality Control Board, Los Angeles Region. After completion of this investigation, no further investigation was required related to tank closure at this location.



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Central Building P Area											
B2	SS-B2-5	7/22/1997	●								
	SS-B2-5 (Dup)	7/22/1997	●								
	SS-B2-10	7/22/1997	●		●						
	SS-B2-10 (Dup)	7/22/1997	●								
	SS-B2-15	7/22/1997	●		●						
	SS-B2-15 (Dup)	7/22/1997	●		●						
	SS-B2-20	7/22/1997	●								
	SS-B2-20 (Dup)	7/22/1997	●								
B3A	SS-B3A-5	7/22/1997	●		●						
	SS-B3A-5 (Dup)	7/22/1997	●								
	SS-B3A-10	7/22/1997	●		●						
	SS-B3A-10 (Dup)	7/22/1997	●								
	SS-B3A-15	7/22/1997	●		●						
	SS-B3A-15 (Dup)	7/22/1997	●								
	SS-B3A-20	7/22/1997	●		●						
	SS-B3A-25	7/22/1997	●		●						
B3C	SS-B3C-5	7/23/1997	●		●						
	SS-B3C-5 (Dup)	7/23/1997	●		●						
	SS-B3C-10	7/23/1997	●		●						
	SS-B3C-10 (Dup)	7/23/1997	●		●						
	SS-B3C-15	7/23/1997	●		●						
	SS-B3C-15 (Dup)	7/23/1997	●		●						
	SS-B3C-20	7/23/1997	●		●						
	SS-B3C-25	7/23/1997	●		●						
MSI	MSI-5-6	12/5/2002	●	●	●	●	●			●	●
	MSI-15-15.5	12/5/2002		●	●	●	●			●	●
PMW-25	PMW25-1-1.5	11/25/2002		●	●	●					
	PMW25-10-10.5	11/25/2002		●	●	●					



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses							pH (8)	Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)		
Central Building P Area											
PMW-26	PMW26-5-5.5	12/3/2002		●	●	●	●			●	●
	PMW26-10-11	12/3/2002	●	●	●	●	●			●	●
	PMW26-25-25.5	12/3/2002	●	●	●	●	●			●	●
	PMW26-35-35.5	12/3/2002		●	●	●	●			●	●
PSVE-1	PSVE-1-1-2	6/26/2002	●	●	●	●	●			●	
	PSVE-1-9.5-10	6/26/2002	●	●	●	●	●			●	
	PSVE-1-11-12	6/26/2002									●
PSVE-2	PSVE-2-1.5-2.5	6/25/2002	●	●	●	●	●			●	
	PSVE-2-8-8.5	6/25/2002	●	●	●	●	●			●	
	PSVE-2-10.5-11.5	6/25/2002									●
	PSVE-2-15.5-16.5	6/25/2002	●								
	PSVE-2-25.5-26.5	6/25/2002	●								
	PSVE-2-40.5-41.5	6/25/2002	●								
	PSVE-2-45-46.5	6/25/2002									●
	PSVE-2-55.5-56.5	6/25/2002	●	●	●	●	●		●		
PSVE-3	PSVE-3-2.5-3.5	6/26/2002	●	●	●	●	●			●	
	PSVE-3-7.5-8.5	6/26/2002	●	●	●	●	●			●	
	PSVE-3-9-11.5	6/26/2002									●
	PSVE-3-41.5-42	6/26/2002	●	●	●	●	●			●	
PSVE-4	PSVE-4-1.5-2.5	6/25/2002	●	●	●	●	●			●	
	PSVE-4-7.5-8.5	6/25/2002	●	●	●	●	●			●	
	PSVE-4-9-10	6/25/2002									●
SB-6	SB-06-4.5-5	4/10/2001		●	●						
	SB-06-5-5.5	4/10/2001	●								
	SB-06-9.5-10	4/10/2001		●	●						
	SB-06-10-10.5	4/10/2001	●								



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Central Building P Area											
SB-7	SB-07-4.5-5	4/10/2001		●	●	●		●			
	SB-07-5-5.5	4/10/2001	●								
	SB-07-9.5-10	4/10/2001		●	●						
	SB-07-10-10.5	4/10/2001	●								
SB-8	SB-08-9.5-10	4/10/2001		●	●	●		●			
	SB-08-10-10.5	4/10/2001	●								
	SB-08-14.5-15	4/10/2001		●	●						
	SB-08-15-15.5	4/10/2001	●								
SB-9	SB-09-9-9.5	4/10/2001		●	●	●		●			
	SB-09-9.5-10	4/10/2001	●								
	SB-09-19.5-20	4/10/2001		●	●						
	SB-09-20-20.5	4/10/2001	●								
SVMW-202	VMW-2-20.5-21.5	3/20/2002	●	●	●	●	●		●		
	VMW-2-30.5-31.5	3/20/2002	●	●	●	●	●		●		
	VMW-2-45.5-46.5	3/20/2002	●	●	●	●	●		●		
SVMW-205	PVMW-5-1-2	7/17/2002	●	●	●	●					
	PVMW-5-7-8	7/17/2002	●	●	●	●					
	PVMW-5-9-11	7/17/2002								●	
SVMW-207	PVMW-7-3-4	6/28/2002	●	●	●	●	●		●		
	PVMW-7-7.5-8.5	6/28/2002	●	●	●	●	●		●		
	PVMW-7-20.5-22	6/28/2002								●	
	PVMW-7-50.5-51.5	6/28/2002	●	●	●	●	●		●		
SVMW-208	PVMW-8-1-2	6/28/2002	●	●	●	●	●		●		
	PVMW-8-7.5-8.5	6/28/2002	●	●	●	●	●		●		
	PVMW-8-9.5-10.5	6/28/2002								●	
	PVMW-8-26-27	6/28/2002	●	●	●	●	●		●		
	PVMW-8-50.5-51.5	6/28/2002	●	●	●	●	●		●		



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Central Building P Area											
SVMW-209	PVMW-9-1.5-2.5	6/25/2002	●	●	●	●	●			●	
	PVMW-9-13-14	6/27/2002	●	●	●	●	●			●	
	PVMW-9-16.5-17.5	6/25/2002									●
	PVMW-9-30.5-31.5	6/25/2002									●
	PVMW-9-50.5-51.5	6/27/2002									●
SVMW-210	PVMW-10-1-2	6/27/2002	●	●	●	●	●			●	
	PVMW-10-7.5-8.5	6/27/2002	●	●	●	●	●			●	
	PVMW-10-9.5-10.5	6/27/2002									●
SVMW-211	PVMW-11-3-4	7/1/2002	●	●	●	●	●			●	
	PVMW-11-10.5-11.5	7/1/2002	●	●	●	●	●			●	
	PVMW-11-16-17	7/1/2002									●
W1	W1-1-1.5	11/26/2002	●	●	●	●	●			●	●
	W1-9.5-10	11/26/2002	●	●	●	●	●			●	●
	W1-25-25.5	11/26/2002	●	●	●	●	●			●	●
	W1-44.5-45	11/26/2002	●								
W2	W2-1-1.5	12/2/2002	●	●	●	●	●			●	●
	W2-5-6	12/2/2002		●	●	●	●			●	●
	W2-10-11	12/2/2002	●	●	●	●	●			●	●
W3	W3-1-2	12/2/2002	●	●	●	●	●			●	●
	W3-10.5-11.5	12/2/2002	●	●	●	●	●			●	●
W4	W4-1-2	12/2/2002	●	●	●	●	●			●	●
	W4-5-6	12/2/2002		●	●	●	●			●	●
	W4-10-11	12/2/2002	●	●	●	●	●			●	●
W5	W5-1.5-2.5	12/2/2002	●	●	●	●	●			●	●
	W5-10-11	12/2/2002	●	●	●	●	●			●	●
W6	W6-2-2.5	12/3/2002	●	●	●	●	●			●	●
	W6-5-6	12/3/2002	●	●	●	●	●			●	●
W7	W7-5-5.5	12/4/2002	●	●	●	●	●			●	●
	W7-15-15.5	12/4/2002	●	●	●	●	●			●	●



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Central Building P Area											
W8	W8-7.5-8.5	12/3/2002	●	●	●	●	●			●	●
	W8-15-16	12/3/2002	●	●	●	●	●			●	●
	W8-25-26	12/3/2002	●	●	●	●	●			●	●
W9	W9-1.5-2.5	12/4/2002	●	●	●	●	●			●	●
	W9-10-11	12/4/2002	●	●	●	●	●			●	●
	W9-25-26	12/4/2002		●	●	●	●			●	●
W10	W10-2.5-3	12/4/2002	●	●	●	●	●			●	●
	W10-11.5-12	12/4/2002		●	●	●	●			●	●
	W10-26.5-27	12/4/2002		●	●	●	●			●	●
W11	W11-10-11	12/6/2002	●	●	●	●	●			●	●
	W11-20-21	12/6/2002	●	●	●	●	●			●	●
W12	W12-3-4	12/4/2002	●	●	●	●	●			●	●
	W12-12-13	12/4/2002		●	●	●	●			●	●
	W12-17-18	12/4/2002	●								
W13	W13-5-5.5	12/4/2002		●	●	●	●			●	●
	W13-15-15.5	12/4/2002		●	●	●	●			●	●
W14	W14-1-2	12/4/2002	●	●	●	●	●			●	●
	W14-10-11	12/4/2002	●	●	●	●	●			●	●
W15	W15-7.5-8.5	12/5/2002	●	●	●	●	●			●	●
	W15-12.5-13.5	12/5/2002	●	●	●	●	●			●	●
	W15-28-29	12/5/2002	●	●	●	●	●			●	●
W16	W16-8-9	12/5/2002	●	●	●	●	●			●	●
	W16-13-14	12/5/2002	●	●	●	●	●			●	●
	W16-28-29	12/5/2002	●	●	●	●	●			●	●
W17	W17-10.5-11.5	12/2/2002	●	●	●	●	●			●	●
	W17-22-23	12/2/2002	●	●	●	●	●			●	●
	W17-32-33	12/2/2002	●	●	●	●	●			●	●
W18	W18-6.5-7.5	12/5/2002	●	●	●	●	●			●	●
	W18-12-12.5	12/5/2002		●	●	●	●			●	●



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Central Building P Area											
W19	W19-5-6	12/5/2002	●	●	●	●	●			●	●
	W19-10-10.5	12/5/2002	●	●	●	●	●			●	●
W20	W20-5-6	12/2/2002	●	●	●	●	●			●	●
	W20-9-9.5	12/2/2002		●	●	●	●			●	●
	W20-19-20	12/2/2002	●	●	●	●	●			●	●
W21	W21-4-5	12/2/2002	●	●	●	●	●			●	●
	W21-9.5-10	12/2/2002		●	●	●	●			●	●
	W21-19-20	12/2/2002	●	●	●	●	●			●	●
W22	W22-3.5-4	12/5/2002		●	●	●	●			●	●
	W22-6.5-7	12/5/2002		●							
	W22-11.5-12.5	12/5/2002	●	●	●	●	●			●	●
	W22-26.5-27.5	12/5/2002	●	●	●	●	●			●	●
W23	W23-4-5	12/2/2002	●	●	●	●	●			●	●
	W3-18-19	12/2/2002	●	●	●	●	●			●	●
W24	W24-6.5-7.5	12/5/2002	●	●	●	●	●			●	●
	W24-11.5-12	12/5/2002		●	●	●	●			●	●
W25	W25-1.5-2.5	12/6/2002	●	●	●	●	●			●	●
	W25-10-11	12/6/2002	●	●	●	●	●			●	●
	W25-20-21	12/6/2002	●	●	●	●	●			●	●
W26	W26-1.5-2.5	12/5/2002	●	●	●	●	●			●	●
	W26-10-11	12/5/2002	●	●	●	●	●			●	●
	W26-25-26	12/5/2002	●	●	●	●	●			●	●
	W26-35.5-36.5	12/5/2002	●	●	●	●	●			●	●
W27	W27-3-4	12/3/2002	●	●	●	●	●			●	●
	W27-7-7.5	12/3/2002		●	●	●	●			●	●



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**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building A Area											
#5	#5	7/19/1984	●	●							
	#5 (Dup)	7/19/1984		●							
#6	#6	7/19/1984	●	●							
	#6 (Dup)	7/19/1984		●							
A1	A1-5-5.5	8/27/2002		●							
	A1-10-10.5	8/27/2002	●	●	●	●					
	A1-15-15.5	8/27/2002		●							
	A1-25-25.5	8/27/2002		●							
	A1-30-30.5	8/27/2002	●								
	A1-45-45.5	8/27/2002	●	●							
A2	A2-1-1.5	8/27/2002	●	●							
	A2-4.5-5	8/27/2002		●	●	●					
	A2-10-10.5	8/27/2002	●	●	●	●					
	A2-15-15.5	8/27/2002		●							
	A2-24.5-25	8/27/2002	●	●							
	A2-45-45.5	8/27/2002	●	●							
A3	A3-1-1.5	8/27/2002	●	●							
	A3-5-5.5	8/27/2002		●							
	A3-10-10.5	8/27/2002	●	●	●	●					
	A3-15-15.5	8/27/2002		●							
	A3-25-25.5	8/27/2002	●	●							
	A3-45-45.5	8/27/2002	●	●							
A4	A4-4.5-5	8/27/2002		●							
	A4-10-10.5	8/27/2002	●	●	●	●					
	A4-15-15.5	8/27/2002		●							
	A4-25-25.5	8/27/2002	●	●							
	A4-45-45.5	8/27/2002	●	●							



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**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building A Area											
A5	A5-1-1.5	8/26/2002	●	●							
	A5-5-5.5	8/26/2002		●	●	●					
	A5-9.5-10	8/26/2002	●	●	●	●					
	A5-25.5-26	8/26/2002	●	●							
A6	A6-5-5.5	8/26/2002		●		●					
	A6-10-10.5	8/26/2002	●	●	●	●					
	A6-15-15.5	8/26/2002		●		●					
	A6-25-25.5	8/26/2002		●							
A7	A7-1-1.5	8/26/2002	●	●							
	A7-5-5.5	8/26/2002		●		●					
	A7-9.5-10	8/26/2002	●	●	●	●					
	A7-14.5-15	8/26/2002		●		●					
	A7-25-25.5	8/26/2002		●							
A8	A8-4.5-5	8/26/2002		●	●	●					
	A8-10-10.5	8/26/2002	●	●	●	●					
	A8-14.5-15	8/26/2002		●		●					
	A8-25-25.5	8/26/2002		●							
A9	A9-5-5.5	8/26/2002		●							
	A9-10-10.5	8/26/2002	●	●	●	●					
	A9-15-15.5	8/26/2002		●							
	A9-25-25.5	8/26/2002		●							
A10	A10-1-1.5	8/28/2002	●	●							
	A10-5.5-6	8/28/2002		●							
	A10-10-10.5	8/28/2002	●	●	●	●					
	A10-15-15.5	8/28/2002		●							
	A10-24.5-25	8/28/2002	●	●							
	A10-45-45.5	8/28/2002	●	●							



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**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building A Area											
A11	A11-1-1.5	8/26/2002	●	●							
	A11-5-5.5	8/26/2002		●							
	A11-10-10.5	8/26/2002	●	●	●	●					
	A11-15-15.5	8/26/2002		●							
	A11-24.5-25	8/26/2002	●	●							
	A11-44.5-45	8/26/2002	●	●							
A12	A12-1-1.5	8/28/2002	●	●							
	A12-5-5.5	8/28/2002		●							
	A12-10-10.5	8/28/2002	●	●	●	●					
	A12-15-15.5	8/28/2002		●							
	A12-25-25.5	8/28/2002		●							
	A12-45-45.5	8/28/2002	●	●							
A13	A13-4.5-5	8/28/2002		●							
A14	A14-5-5.5	8/27/2002		●	●	●					
	A14-10-10.5	8/27/2002	●	●	●	●					
	A14-15-15.5	8/27/2002		●							
	A14-30-30.5	8/27/2002	●	●							
A15	A15-C (10)	12/4/2002							●		
	A15-0.5	12/4/2002							●		
A16	A16-C (10)	12/4/2002							●		
	A16-1.0	12/4/2002							●		
A17	A17-C (10)	12/4/2002							●		
	A17-0.5	12/4/2002							●		
A18	A18-C (10)	12/4/2002							●		
	A18-0.5	12/4/2002							●		
A19	A19-C (10)	12/4/2002							●		
	A19-0.5	12/4/2002							●		



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building A Area											
Boring C/MW-1	C-5	2/4/1986		●							
	C-10	2/4/1986		●							
	C-15	2/4/1986		●							
	C-20	2/4/1986		●							
	C-30	2/4/1986		●							
	C-40	2/4/1986		●							
	C-40	2/26/1986		●							
	C-50	2/26/1986		●							
	C-60	2/26/1986		●							
C1	SS-C1-8	6/4/1997	●		●			●			
	SS-C1-8 (Dup)	6/4/1997	●					●			
	SS-C1-20	6/4/1997	●		●			●			
	SS-C1-20 (Dup)	6/4/1997	●		●			●			
	SS-C1-20 (Dup)	6/4/1997	●								
	SS-C1-40	6/4/1997	●		●			●			
	SS-C1-40 (Dup)	6/4/1997	●								
C2	SS-C2-06	6/4/1997	●		●			●			
	SS-C2-06 (Dup)	6/4/1997	●					●			
C3	SS-C3-06	6/4/1997	●		●			●			
	SS-C3-06 (Dup)	6/4/1997	●					●			
	SS-C3-3	6/4/1997	●		●			●			
	SS-C3-3 (Dup)	6/4/1997	●								



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**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building A Area											
C4	SS-C4-06	7/23/1997	●		●			●			
	SS-C4-06 (Dup)	7/23/1997	●					●			
	SS-C4-5	7/23/1997	●		●			●			
	SS-C4-5 (Dup)	7/23/1997	●								
	SS-C4-10	7/23/1997	●		●			●			
	SS-C4-15	7/23/1997	●		●			●			
	SS-C4-15 (Dup)	7/23/1997	●								
	SS-C4-20	7/23/1997	●		●						
	SS-C4-25	7/23/1997	●		●						
SS-C4-25 (Dup)	7/23/1997	●									
MW-4	MW-4-16	12/29/1998	●	●							
	MW-4-21	12/29/1998	●	●							
	MW-4-41	12/29/1998	●	●							
	MW-4-46	12/29/1998	●	●							
MW-5	MW-5-6	12/22/1998	●	●							
	MW-5-16	12/22/1998	●	●							
	MW-5-21	12/22/1998	●	●							
	MW-5-31	12/22/1998	●	●							
MW-6	MW-6-11	12/22/1998	●	●							
	MW-6-21	12/22/1998	●	●							
	MW-6-31	12/22/1998	●	●							
	MW-6-36	12/22/1998	●	●							
MW-7	MW-7-10.5	12/21/1998	●	●							
	MW-7-21	12/21/1998	●	●							
	MW-7-26	12/21/1998	●	●							
	MW-7-36	12/21/1998	●	●							



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Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
<b>Building A Area</b> MW-8	MW-8-11	5/23/2000	●	●							
	MW-8-21	5/23/2000	●	●							
	MW-8-31	5/23/2000	●	●							
	MW-8-41	5/23/2000	●	●							
PMW-14	PMW14-11.5-12	9/26/2002		●							
	PMW14-24.5-25	9/26/2002		●	●	●					
	PMW14-26-26.5	9/26/2002	●								
	PMW14-39.5-40	9/26/2002		●	●	●					
	PMW14-45-45.5	9/26/2002	●								
	PMW14-60-60.5	9/26/2002	●	●							
PMW-16	PMW16-1-1.5	9/25/2002		●							
	PMW16-1.5-2	9/25/2002	●								
	PMW16-9.5-10	9/25/2002	●								
	PMW16-10-11	9/25/2002									●
	PMW16-11-11.5	9/25/2002		●	●	●					
	PMW16-24.5-25	9/25/2002	●	●							
	PMW16-25.5-26.5	9/25/2002									●
	PMW16-45-45.5	9/25/2002	●	●							
PMW-17	PMW16-45.5-46.5	9/25/2002									●
	PMW17-4.5-5	9/30/2002		●							
	PMW17-9.5-10	9/30/2002	●	●	●	●					
	PMW17-24.5-25	9/30/2002		●							
PMW-18	PMW17-47.5-48	9/30/2002		●							
	PMW18-4-4.5	9/24/2002	●	●	●	●					
	PMW18-20.5-21	9/24/2002		●	●	●					
	PMW18-27.5-28	9/24/2002	●								
	PMW18-29.5-30	9/24/2002		●							
	PMW18-44.5-45	9/24/2002		●							
	PMW18-45-45.5	9/24/2002	●								



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Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

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			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
<b>Building A Area</b> SB-12	SB-12-5.5-6.5	3/20/2002	●	●	●	●					
	SB-12-10.5-11.5	3/20/2002	●	●	●	●					
	SB-12-20-21	3/20/2002		●							
	SB-12-25.5-26.5	3/20/2002		●							
SB-13	SB-13-5.5-6.5	3/21/2002			●	●					
	SB-13-10.5-11.5	3/21/2002	●	●							
	SB-13-15.5-16.5	3/21/2002			●	●					
	SB-13-20.5-21.5	3/21/2002	●	●							
	SB-13-30.5-31.5	3/21/2002	●	●							
	SB-13-45.5-46.5	3/21/2002	●	●							
SB-14	SB-14-5.5-6.5	3/21/2002	●	●	●	●					
	SB-14-15.5-16.5	3/21/2002			●	●					
	SB-14-20.5-21.5	3/21/2002	●	●							
SB-15	SB-15-5.5-6.5	3/21/2002			●	●					
	SB-15-10.5-11.5	3/21/2002	●	●	●	●					
	SB-15-20.5-21.5	3/21/2002	●	●							
SB-16	SB-16-5.5-6.5	3/21/2002			●	●					
	SB-16-10.5-11.5	3/21/2002	●	●	●	●					
	SB-16-20.5-21.5	3/21/2002	●	●							
<b>Oil Staging Area</b>											
#1	#1	7/19/1984	●	●							
	#1 (Dup)	7/19/1984		●							
#2	#2	7/19/1984	●	●							
	#2 (Dup)	7/19/1984		●							
#3	#3	7/19/1984	●	●							
	#3 (Dup)	7/19/1984		●							
#4	#4	7/19/1984	●	●							
	#4 (Dup)	7/19/1984		●							



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Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

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			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Oil Staging Area											
#8	#8	7/19/1984	●	●							
	#8 (Dup)	7/19/1984		●							
Boring B/2	2-10	10/30/1985	●	●				●			
	2-20	10/30/1985	●	●				●			
	2-30	10/30/1985	●	●				●			
	2-40	10/30/1985	●	●				●			
	2-50	10/30/1985	●	●				●			
	2-55	10/30/1985	●	●				●			
D1	SS-D1-8	6/5/1997	●								
	SS-D1-8 (Dup)	6/5/1997	●								
	SS-D1-20	6/5/1997	●								
	SS-D1-20(Dup)	6/5/1997	●								
	SS-D1-40	6/5/1997	●								
D2	SS-D2-8	6/5/1997	●		●	●					
	SS-D2-8 (Dup)	6/5/1997	●					●			
	SS-D2-18	6/5/1997	●		●	●					
	SS-D2-18 (Dup)	6/5/1997	●		●	●					
	SS-D2-18 (Dup)	6/5/1997	●								
	SS-D2-40	6/5/1997	●		●	●					
	SS-D2-40 (Dup)	6/5/1997	●								
D3	SS-D3-8	6/5/1997	●		●	●					
	SS-D3-8 (Dup)	6/5/1997	●					●			
	SS-D3-20	6/5/1997	●		●	●					
	SS-D3-20 (Dup)	6/5/1997	●								
	SS-D3-40	6/5/1997	●		●	●					
	SS-D3-40 (Dup)	6/5/1997	●								



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Oil Staging Area PMW-11	PMW-11-2.5-3.5	7/10/2002	●	●	●	●					
	PMW-11-7-8	7/10/2002	●	●	●	●					
	PMW-11-8.5-9.5	7/10/2002									●
	PMW-11-32-33.5	7/10/2002									●
	PMW-11-50-51	7/10/2002									●
PMW-22	PMW22-4.5-5	11/20/2002	●		●	●					
	PMW22-9.5-10	11/20/2002	●	●	●	●					
	PMW22-19.5-20	11/20/2002	●	●	●	●					
	PMW22-29.5-30	11/20/2002	●	●							
	PMW22-44.5-45	11/20/2002	●								
PSVE-5	PSVE-5-3.5-4.5	7/9/2002	●	●	●	●					
	PSVE-5-10.5-11.5	7/9/2002	●	●	●	●					
	PSVE-5-12-13	7/9/2002									●
PSVE-6	PSVE-6-2.5-3.5	7/8/2002	●	●	●	●					
	PSVE-6-9-10	7/8/2002	●	●	●	●					
	PSVE-6-10.5-11.5	7/8/2002									●
PSVE-7	PSVE-7-2.5-3.5	7/8/2002	●	●	●	●					
	PSVE-7-7.5-8.5	7/8/2002	●	●	●	●					
	PSVE-7-15.5-17	7/8/2002	●	●	●	●					●
SB-1	SB-01-9.5-10	4/11/2001		●	●	●		●			
	SB-01-10-10.5	4/11/2001	●								
	SB-01-14.5-15	4/11/2001		●	●	●		●			
	SB-01-15-15.5	4/11/2001	●								
SB-2	SB-02-9.5-10	4/11/2001		●	●	●		●			
	SB-02-10-10.5	4/11/2001	●								
	SB-02-14.5-15	4/11/2001		●	●	●		●			
	SB-02-15-15.5	4/11/2001	●								



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Oil Staging Area											
SB-11	SB-11-20-21	3/19/2002	●	●	●	●					
	SB-11-30-31	3/19/2002	●	●	●	●					
	SB-11-45.5-46.5	3/19/2002	●	●							
SVMW-201	VMW-1-5-6	3/19/2002		●	●	●					
	VMW-1-10-11	3/19/2002	●	●	●	●					
	VMW-1-15-16	3/19/2002	●								
	VMW-1-20.5-21.5	3/19/2002	●	●	●	●					
	VMW-1-30-31	3/19/2002	●	●	●	●					
	VMW-1-45.5-46.5	3/19/2002	●	●							
SVMW-214	PVMW-14-2.5-3.5	7/9/2002	●	●	●	●					
	PVMW-14-7-8	7/9/2002	●	●	●	●					
	PVMW-14-9.5-11	7/9/2002								●	
Building L Area											
L1	L1-0.25-0.75	7/25/2002			●						
L2	L2-0.5-1	7/25/2002			●						
L3	L3-0.5-1	7/25/2002			●						
L4	L4-0.5-1	7/25/2002			●						
L5	L5-0.5-1	7/25/2002			●						
	L5-1.5-2	7/25/2002			●						
L6	L6-0.25-0.75	7/25/2002			●						
L7	L7-0.5-1	7/25/2002			●						
	L7-1.5-2	7/25/2002			●						
L8	L8-0.5-1	7/24/2002			●						
L9	L9-0.25-0.75	7/25/2002			●						
L10	L10-0.25	7/25/2002	●								
	L10-0.25-0.75	7/25/2002			●						
	L10-1.5-2	7/25/2002			●						
L11	L11-0.5-1	7/25/2002		●	●			●			
L12	L12-0.5-1	7/24/2002			●						



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building L Area											
L13	L13-0.25-0.75	7/25/2002			●						
L14	L14-0.5-1	7/25/2002		●	●			●			
	L14-1.5-2	7/25/2002			●						
L15	L15-0.5	7/24/2002	●								
	L15-0.5-1	7/24/2002		●	●			●			
L16	L16-0.25-0.75	7/25/2002			●						
L17	L17-0.5-1	7/24/2002			●						
L18	L18-0.5-1	7/24/2002			●						
L19	L19-0.5-1	7/24/2002			●						
	L19-1.5-2	7/24/2002			●						
L20	L20-0.5	7/24/2002	●								
	L20-0.5-1	7/24/2002		●	●			●			
	L20-1.5-2	7/24/2002			●						
L21	L21-0.5-1	7/24/2002		●	●			●			
	L21-1.5-2	7/24/2002			●						
L22	L22-0.25-0.75	7/24/2002			●						
L23	L23-0.5-1	7/24/2002			●						
L24	L24-0.5-1	7/24/2002			●						
L25	L25-0.25	7/24/2002	●								
	L25-0.25-0.75	7/24/2002			●						
	L25-1.5-2	7/24/2002			●						
L26	L26-0.5-1	7/24/2002		●	●			●			
	L26-1.5-2	7/24/2002			●						
L27	L27-0.5	7/24/2002	●								
	L27-0.5-1	7/24/2002		●	●			●			
	L27-1.5-2	7/24/2002			●						
L28	L28-0.25-0.75	7/24/2002			●						
L29	L29-0.5-1	7/24/2002			●						
L30	L30-0.5-1	7/24/2002		●	●			●			



**Table 2**  
***Summary of Laboratory Analyses Performed on Soil Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building L Area											
L31	L31-0.5	7/24/2002	●								
	L31-0.5-1	7/24/2002		●	●			●			
L32	L32-0.5-1	7/24/2002		●	●			●			
L33	L33-0.5-1	7/24/2002		●	●			●			
L34	L34-0.5	7/25/2002	●								
	L34-0.5-1	7/25/2002			●						
PMW-12	PMW-12-2-3	6/24/2002	●	●	●	●					
	PMW-12-8.5-9.5	6/24/2002	●	●	●	●					●
	PMW-12-9.5-10.5	6/24/2002									
SB-3	SB-03-4.5-5	4/11/2001		●	●			●			
	SB-03-5-5.5	4/11/2001	●								
	SB-03-9.5-10	4/11/2001		●	●						
	SB-03-10-10.5	4/11/2001	●								
SB-4	SB-04-4.5-5	4/11/2001		●	●			●			
	SB-04-5-5.5	4/11/2001	●								
	SB-04-9.5-10	4/11/2001		●	●						
	SB-04-10-10.5	4/11/2001	●								
SVMW-213	PVMW-13-2-3	7/16/2002	●	●	●	●					
	PVMW-13-8.5-9.5	7/16/2002	●	●	●	●					
	PVMW-13-10-15	7/16/2002	●								●
	PVMW-13-30-32	7/16/2002	●								●
	PVMW-13-48.5-49.5	7/16/2002	●								●
T-2	T-2U	3/19/2002			●						
	T-2L	3/19/2002			●						
T-3	T-3U	3/19/2002	●	●	●	●		●			
	T-3L	3/19/2002		●	●	●		●			
T-5	T-5U	3/19/2002			●						
	T-5L	3/19/2002			●						



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Building L Area											
T-7	T-7U	3/19/2002			●						
	T-7L	3/19/2002			●						
T-8	T-8U	3/19/2002	●	●	●	●		●			
	T-8L	3/19/2002		●	●	●		●			
Other Site Locations											
1	1	6/21/1989	●	●							
2	2	6/21/1989	●	●							
3	3	6/21/1989	●	●							
4	4	6/21/1989	●	●							
#7	#7	7/19/1984	●	●							
Boring E	E-5	1/29/1986		●							
	E-10	1/29/1986		●							
	E-15	1/29/1986		●							
	E-20	1/29/1986		●							
	E-30	1/29/1986		●							
	E-40	1/29/1986		●							
A1	SS-A1-06	6/3/1997	●		●	●		●			
	SS-A1-3	6/3/1997	●		●	●		●			
	SS-A1-10	6/3/1997	●		●	●		●			
	SS-A1-15	6/3/1997	●		●	●		●			
	SS-A1-40	6/3/1997	●		●	●		●			
B1	SS-B1-8	6/5/1997	●		●	●					
	SS-B1-8 (Dup)	6/5/1997	●								
	SS-B1-20	6/5/1997	●		●	●					
	SS-B1-20 (Dup)	6/5/1997	●		●	●					
	SS-B1-20 (Dup)	6/5/1997	●								
	SS-B1-40	6/5/1997	●		●	●					



**Table 2**  
**Summary of Laboratory Analyses Performed on Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Other Site Locations											
PMW-9	PMW-9-2-3	7/10/2002	●	●	●	●					
	PMW-9-7-8	7/10/2002	●	●	●	●					
	PMW-9-15-16	7/10/2002									●
PMW-10	PMW-10-2.5-3.5	7/15/2002	●	●	●	●					
	PMW-10-7-8	7/15/2002	●	●	●	●					
	PMW-10-8.5-10.5	7/15/2002									●
PMW-13	PMW-13-2-3	7/11/2002	●	●	●	●					
	PMW-13-7.5-8.5	7/11/2002	●	●	●	●					
	PMW-13-9-10	7/11/2002									●
	PMW-13-30-31	7/11/2002									●
	PMW-13-50-51	7/11/2002									●
	PMW-13-65-66	7/11/2002									●
PMW-15	PMW-15-2-3	7/15/2002	●	●	●	●					
	PMW-15-7-8	7/15/2002	●	●	●	●					
	PMW-15-9-11	7/15/2002									●
	PMW-15-30-31	7/15/2002									●
	PMW-15-60-61	7/15/2002									●
SB-5	SB-05-4.5-5	4/11/2001		●	●			●			
	SB-05-5-5.5	4/11/2001	●								
	SB-05-9.5-10	4/11/2001		●	●						
	SB-05-10-10.5	4/11/2001	●								
SB-10	SB-10-9.5-10	4/10/2001	●								
	SB-10-10-10.5	4/10/2001		●	●	●		●			
	SB-10-19.5-20	4/10/2001		●	●						
	SB-10-20-20.5	4/10/2001	●								
SP-1	SP-1	3/15/1988		●							
SP-2	SP-2	3/15/1988		●							
SP-3	SP-3	3/15/1988		●							
SP-4	SP-4	3/15/1988		●							



**Table 2**  
***Summary of Laboratory Analyses Performed on Soil Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses								Physical Properties (9)
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	SVOCs (6)	PCBs (7)	pH (8)	
Other Site Locations											
SVMW-203	PVMW-3-2-3	7/16/2002	●	●	●	●					
	PVMW-3-7-8	7/16/2002	●	●	●	●					
	PVMW-3-9-11	7/16/2002									●
SVMW-204	PVMW-4-2.5-3.5	7/17/2002	●	●	●	●					
	PVMW-4-7-8	7/17/2002	●	●	●	●					
	PVMW-4-10-11	7/17/2002									●
	PVMW-4-26.5-27.5	7/17/2002									●
	PVMW-4-54-55	7/17/2002									●
SVMW-206	PVMW-6-2.5-3.5	7/16/2002	●	●	●	●					
	PVMW-6-7-8	7/16/2002	●	●	●	●					
	PVMW-6-8.5-9.5	7/16/2002									●
	PVMW-6-25-26	7/16/2002									●
	PVMW-6-40-41	7/16/2002									●
SVMW-212	PVMW-12-1-2	7/2/2002	●	●	●	●	●			●	
	PVMW-12-7.5-8.5	7/2/2002	●	●	●	●	●			●	
	PVMW-12-9-10.5	7/2/2002									●



## Table 2

### *Summary of Laboratory Analyses Performed on Soil Samples*

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

#### Abbreviations

Dup	Duplicate or sequential sample
TPH	Total petroleum hydrocarbons
PCBs	Polychlorinated biphenyls
VOCs	Volatile organic compounds
SVOCs	Semi-volatile organic compounds

#### Notes

- (1) Samples collected in 2002 were analyzed for approximately 60 target VOCs including 1,4-dioxane, trichloropropane, and methyl tert-butyl ether, using EPA Methods 5035 and 8260B. Samples collected before 2002 may have had a slightly different list of target analytes.
- (2) Samples collected in 2002 were analyzed for total volatile petroleum hydrocarbons by EPA Method 8015M and total extractable petroleum hydrocarbons with silica gel cleanup using EPA Method 8015M. Samples collected before 2002 may have been analyzed by a different method and/or may report results in different carbon ranges.
- (3) These samples were analyzed for 17 metals regulated under the California Code of Regulations, Title 22 by ICP/MS using EPA Methods 3050/6020 and 7471 or a related method.
- (4) These samples were analyzed for hexavalent chromium using EPA Method 7196/200.8.
- (5) These samples were analyzed for total cyanide using EPA Method 9010.
- (6) These samples were analyzed for SVOCs or polycyclic aromatic hydrocarbons using EPA Method 8270.
- (7) These samples were analyzed for PCBs using EPA Method 8082.
- (8) These samples were analyzed for pH using EPA Method 9045.
- (9) These samples were analyzed for moisture content by weight, bulk density, grain density, effective porosity, air-filled porosity, particle size, and total organic carbon.
- (10) This is a concrete sample.



**Table 3**  
**Summary of Laboratory Analyses Performed on Groundwater Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses					
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	pH (6)
Central Building P Area								
PMW-23	PMW-23	12/5/2002	●	●	●	●		
	DUP-1	12/5/2002	●	●	●	●		
	PMW-23	1/8/2003	●	●	●	●	●	●
PMW-24	PMW-24	12/5/2002	●	●	●	●		
	PMW-24	1/8/2003	●	●	●	●	●	●
PMW-25	PMW-25	12/5/2002	●	●	●	●		
	PMW-25	1/8/2003	●	●	●	●	●	●
PMW-26	PMW-26	12/6/2002	●	●	●	●		
	PMW-26	1/8/2003	●	●	●	●	●	●
Building A Area								
MW-4	MW-4	3/8/2002	●	●	●	●		
	MW-4	6/5/2002	●	●	●	●		
	MW-4	8/12/2002	●	●	●	●		
	MW-4	11/8/2002	●	●	●	●		
	MW-4	1/7/2003	●	●	●	●	●	●
MW-5	MW-5	3/8/2002	●	●	●	●		
	MW-5	6/5/2002	●	●	●	●		
	MW-5	8/14/2002	●	●	●	●		
	MW-5	11/8/2002	●	●	●	●		
	DUP-2	11/8/2002	●	●	●	●		
	MW-5	1/8/2003	●	●	●	●	●	●
MW-6	MW-6	3/8/2002	●	●	●	●		
	MW-6	6/5/2002	●	●	●	●		
	MW-6	8/13/2002	●	●	●	●		
	DUP-2	8/13/2002	●	●	●	●		
	MW-6	11/8/2002	●	●	●	●		
	MW-6	1/7/2003	●	●	●	●	●	●



**Table 3**  
**Summary of Laboratory Analyses Performed on Groundwater Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses					
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	pH (6)
Building A Area								
MW-7	MW-7	3/8/2002	●	●	●	●		
	MW-7 DUPE	3/8/2002	●	●	●	●		
	MW-7	6/5/2002	●	●	●	●		
	MW-7	8/12/2002	●	●	●	●		
	DUP-1	8/12/2002	●	●	●	●		
	MW-7	11/8/2002	●	●	●	●		
	MW-7	1/8/2003	●	●	●	●	●	●
MW-8	MW-8	3/8/2002	●	●	●	●		
	MW-8	6/5/2002	●	●	●	●		
	MW-8 DUPE	6/5/2002	●	●	●	●		
	MW-8	8/13/2002	●	●	●	●		
	MW-8	11/8/2002	●	●	●	●		
	MW-8	1/6/2003	●	●	●	●	●	●
	DUP-1	1/6/2003	●	●	●	●	●	●
PMW-14	PMW-14	10/22/2002	●	●	●	●		
	PMW-14	11/8/2002	●	●	●	●		
	PMW-14	1/7/2003	●	●	●	●	●	●
	DUP-2	1/7/2003	●	●	●	●	●	●
PMW-21B	PMW-21B	12/5/2002	●	●	●	●		
	PMW-21B	1/6/2003	●	●	●	●	●	●
Oil Staging Area								
PMW-11	PMW-11	8/14/2002	●	●	●	●		
	DUP-3	8/14/2002	●	●	●	●		
	PMW-11	11/7/2002	●	●	●	●		
	PMW-11	1/8/2003	●	●	●	●	●	●
PMW-22	PMW-22	12/6/2002	●	●	●	●		
	DUP-2	12/6/2002	●	●	●	●		
	PMW-22	1/7/2003	●	●	●	●	●	●



**Table 3**  
**Summary of Laboratory Analyses Performed on Groundwater Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sample Date	Analyses					
			VOCs (1)	TPH (2)	Metals (3)	Hexavalent Chromium (4)	Cyanide (5)	pH (6)
Building L Area								
PMW-12	PMW-12	8/14/2002	●	●	●	●		
	PMW-12	11/7/2002	●	●	●	●		
	PMW-12	1/7/2003	●	●	●	●	●	●
Other Site Locations								
A1 (7)	A-1	3/8/2002	●	●	●	●		
A2 (7)	A-2	3/8/2002	●	●	●	●		
PMW-9	PMW-9	8/13/2002	●	●	●	●		
	PMW-9	11/7/2002	●	●	●	●		
	PMW-9	1/7/2003	●	●	●	●	●	●
PMW-10	PMW-10	8/12/2002	●	●	●	●		
	PMW-10	11/7/2002	●	●	●	●		
	PMW-10	1/7/2003	●	●	●	●	●	●
PMW-13	PMW-13	8/13/2002	●	●	●	●		
	PMW-13	11/7/2002	●	●	●			
	DUP-1	11/7/2002	●	●	●			
	PMW-13	1/8/2003	●	●	●	●	●	●
	DUP-3	1/8/2003	●	●	●	●	●	●
PMW-15	PMW-15	8/12/2002	●	●	●	●		
	PMW-15	11/7/2002	●	●	●	●		
	PMW-15	1/7/2003	●	●	●	●	●	●
PMW-19	PMW-19	12/5/2002	●	●	●	●		
	PMW-19	1/6/2003	●	●	●	●	●	●
PMW-20	PMW-20	12/5/2002	●	●	●	●		
	PMW-20	1/6/2003	●	●	●	●	●	●



### **Table 3**

#### ***Summary of Laboratory Analyses Performed on Groundwater Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

Dup	Duplicate or sequential sample
TPH	Total petroleum hydrocarbons
VOC	Volatile organic compound

#### **Notes**

- (1) Samples collected were analyzed for approximately 60 target VOCs including 1,4-dioxane, trichloropropane, and methyl tertiary butyl ether, using EPA Methods 5030/8260.
- (2) Samples collected were analyzed for total volatile petroleum hydrocarbons by EPA Method 8015M and total extractable petroleum hydrocarbons with silica gel cleanup using EPA Method 8015M.
- (3) These samples were analyzed for 17 metals regulated under the California Code of Regulations, Title 22 by ICP/MS using EPA Method 200.8 or a related method.
- (4) These samples were analyzed for hexavalent chromium using EPA Method 7196A/200.8.
- (5) These samples were analyzed for total cyanide using EPA Method 335.2.
- (6) These samples were analyzed for pH using EPA Method 150.1.
- (7) Wells A1 and A2 are sampled by Arcadis Geraghty & Miller as part of the Holchem/Brenntag West, Inc. monitoring program. EKI collected split samples from these wells in March 2002.



**Table 4**  
**Summary of Well Construction Details**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date Installed	Total Depth of Boring (ft bgs)	Borehole Diameter (inches)	Elevation of Ground Surface (ft msl) (1)	Elevation of Top of Casing (ft msl) (1)	Well Casing and Intake Screen Details				Soil Vapor Monitoring Well Construction Details	
						Well Casing Diameter (inches)	Length of Screen (ft)	Screen Interval (ft bgs)	Screen Slot Size (inches)	Number of Vapor Screen Intervals (2)	Depth to Vapor Screens (ft bgs)
Groundwater Monitoring Wells											
MW-4	12/29/98	71.5	11	--	1036.63	4	30	37.5 - 67.5	0.03	--	--
MW-5	12/23/98	71.5	11	--	1035.35	4	30	37 - 67	0.03	--	--
MW-6	12/22/98	73	11	--	1033.71	4	30	37.7 - 67.7	0.03	--	--
MW-7	12/22/98	75	11	--	1033.72	4	30	39.1 - 69.1	0.03	--	--
MW-8	05/23/00	90	11	--	1032.68	4	40	49.5 - 89.5	0.03	--	--
A1 (3)	06/03/97	80	8	1051.76	1051.13	2	20	60 - 80	0.02	--	--
A2 (3)	06/04/97	70	8	1042.42	1041.99	2	20	50 - 70	0.02	--	--
PMW-19	11/19/02	85	11	1026.98	1026.59	4	30	55 - 85	0.03	--	--
PMW-20	11/18/02	90	11	1032.38	1031.68	4	30	55 - 85	0.03	--	--
PMW-21B	11/15/02	110.5	11	1035.95	1035.44	4	10	98.5 - 108.5	0.03	--	--
PMW-22	11/20/02	70	9	1040.92	1041.38	4	20	50 - 70	0.03	--	--
PMW-23	11/22/02	76	7.75	1041.95	1041.63	4	20	53 - 73	0.03	--	--
PMW-24	11/22/02	75	9	1041.89	1041.60	4	20	54.5 - 74.5	0.03	--	--
PMW-25	11/25/02	76	9	1041.67	1041.23	4	20	55 - 75	0.03	--	--
PMW-26	12/04/02	76	7.75	1041.76	1041.43	2	20	55 - 75	0.03	--	--
Soil Vapor/Groundwater Monitoring Wells											
PMW-9	07/10/02	71.5	9	1033.96	1033.16	2	20	50 - 70	0.03	3	15, 30, 45
PMW-10	07/15/02	73	9	1039.33	1038.53	2	20	53 - 73	0.03	3	18, 33, 48
PMW-11	07/10/02	71.5	9	1039.06	1038.11	2	20	50 - 70	0.03	3	15, 30, 45
PMW-12	06/24/02	76	9	1043.61	1043.04	2	20	55 - 75	0.03	3	20, 35, 50
PMW-13	07/11/02	86.5	9	1031.34	1030.46	2	20	65 - 85	0.03	4	15, 30, 45, 60
PMW-14	09/26/02	98	12	1035.86	1035.42	4	30	65 - 95	0.03	4	15, 30, 45, 60
PMW-15	07/15/02	91.5	9	1038.58	1037.49	2	20	70 - 90	0.03	4	20, 35, 50, 65



**Table 4**  
**Summary of Well Construction Details**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date Installed	Total Depth of Boring (ft bgs)	Borehole Diameter (inches)	Elevation of Ground Surface (ft msl) (1)	Elevation of Top of Casing (ft msl) (1)	Well Casing and Intake Screen Details				Soil Vapor Monitoring Well Construction Details	
						Well Casing Diameter (inches)	Length of Screen (ft)	Screen Interval (ft bgs)	Screen Slot Size (inches)	Number of Vapor Screen Intervals (2)	Depth to Vapor Screens (ft bgs)
Soil Vapor Monitoring Wells											
SVMW-201	03/19/02	46.5	8	1038.91	--	--	--	--	--	3	15, 30, 45
SVMW-202	03/20/02	46.5	8	1041.88	--	--	--	--	--	3	15, 30, 45
SVMW-203	07/16/02	49	9	1042.21	--	--	--	--	--	3	18, 33, 48
SVMW-204	07/17/02	55	9	1047.90	--	--	--	--	--	3	24, 39, 54
SVMW-205	07/17/02	52	9	1045.41	--	--	--	--	--	3	21, 36, 51
SVMW-206	07/16/02	45	9	1035.14	--	--	--	--	--	3	14, 29, 44
SVMW-207	06/28/02	51.5	8	1041.54	--	--	--	--	--	3	20, 35, 50
SVMW-208	06/28/02	51.5	8	1041.61	--	--	--	--	--	3	20, 35, 50
SVMW-209	07/01/02	51.5	8	1041.86	--	--	--	--	--	3	20, 35, 50
SVMW-210	06/27/02	51.5	8	1042.14	--	--	--	--	--	3	20, 35, 50
SVMW-211	07/01/02	51.5	8	1042.26	--	--	--	--	--	3	20, 35, 50
SVMW-212	07/02/02	51.5	8	1042.98	--	--	--	--	--	3	20, 35, 50
SVMW-213	07/16/02	50	9	1043.74	--	--	--	--	--	3	19, 34, 49
SVMW-214	07/09/02	47	9	1038.67	--	--	--	--	--	3	16, 31, 46
Soil Vapor Extraction Wells											
PSVE-1	06/27/02	57	10	1041.85	--	4	20	35 - 55	0.04	--	--
PSVE-2	06/26/02	56.5	10	1042.05	--	4	20	35 - 55	0.04	--	--
PSVE-3	06/28/02	48	10	1041.94	--	4	15	33 - 48	0.04	--	--
PSVE-4	06/26/02	56.5	10	1041.91	--	4	20	35 - 55	0.04	--	--
PSVE-5	07/09/02	51.5	11	1038.76	--	4	20	31 - 51	0.04	--	--
PSVE-6	07/09/02	56.5	11	1042.77	--	4	20	35 - 55	0.04	--	--
PSVE-7	07/08/02	56.5	11	1043.35	--	4	20	35 - 55	0.04	--	--



**Table 4**  
**Summary of Well Construction Details**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date Installed	Total Depth of Boring (ft bgs)	Borehole Diameter (inches)	Elevation of Ground Surface (ft msl) (1)	Elevation of Top of Casing (ft msl) (1)	Well Casing and Intake Screen Details				Soil Vapor Monitoring Well Construction Details	
						Well Casing Diameter (inches)	Length of Screen (ft)	Screen Interval (ft bgs)	Screen Slot Size (inches)	Number of Vapor Screen Intervals (2)	Depth to Vapor Screens (ft bgs)
Free Hydrocarbon Product Collection Wells											
MW-1	08/03/88	60	10	--	1036.63	10	10	46 - 56	(4)	--	--
MW-2	06/30/98	72	12	--	1035.35	6	30	39 - 69	0.03	--	--
MW-3	06/30/98	70	12	--	1033.71	6	30	37 - 67	0.03	--	--
PMW-16	09/25/02	76	12	1035.83	1035.30	6	30	44.5 - 74.5	0.03	--	--
PMW-18	09/24/02	70.5	12	1035.86	1035.32	6	30	40 - 70	0.03	--	--
Soil Vapor Monitoring/Free Hydrocarbon Product Collection Wells											
PMW-17	09/30/02	78.5	15	1035.87	1035.22	6	30	45 - 75	0.03	3	10, 25, 40



**Table 4**  
***Summary of Well Construction Details***  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

ft	feet
ft bgs	feet below ground or floor surface
ft msl	feet relative to mean sea level
--	Not Applicable

**Notes**

- (1) Groundwater monitoring well locations were surveyed by Bill Carr Survey's, Inc., of Huntington Beach, California, a licensed Land Surveyor. Vertical coordinates were based on the National Vertical Geodetic Datum 1929, City of Los Angeles Benchmark 03-0210, elevation 1034.033 feet.
- (2) Six-inch long stainless steel soil vapor intake screens were attached to the outer casing of the groundwater well or to a small diameter PVC support rod at the depths listed above. Dedicated Teflon-lined or Teflon tubing was connected to the probes and extends to ground surface for sampling. Vacuum rated fittings were used to cap the ends of the tubing.
- (3) Groundwater monitoring wells A1 and A2 were installed on-Site by the California Department of Toxic Substances Control ("DTSC"). These wells are currently monitored by Arcadis Geraghty & Miller ("AG&M") for the Holchem / Brenntag West, Inc. property located at 13456 Desmond Street, Pacoima, California.
- (4) After drilling boring MW-1, stainless-steel blank casing was placed in the boring to prevent it from collapsing. Two years later, this boring was converted to monitoring well MW-1 by plugging the bottom of the boring with concrete and perforating the casing *in situ*. The size of the perforations is unknown and no filter pack was placed around the casing of the well.



**Table 5**  
**Water Level Measurements in Groundwater Monitoring Wells**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Top of Casing Elevation (1) (ft msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft msl)
A1 (2)	8/16/2000	1052.80	65.50	987.30
	11/16/2000		65.81	986.99
	3/1/2001		66.03	986.77
	5/30/2001		66.09	986.71
	9/14/2001		66.60	986.20
	12/17/2001		66.94	985.86
	1/3/2002	1051.05	67.04	984.01
	3/7/2002		67.39	983.66
	5/13/2002	1051.01	67.70	983.31
	6/21/2002		68.01	983.00
	8/13/2002		68.52	982.49
A2 (2)	8/16/2000	1043.74	56.63	987.11
	11/16/2000		56.96	986.78
	3/1/2001		57.11	986.63
	5/30/2001		57.19	986.55
	9/14/2001		57.68	986.06
	12/17/2001		58.02	985.72
	1/3/2002	1041.87	58.13	983.74
	3/8/2002		58.46	983.41
	5/13/2002	1041.84	58.68	983.16
	6/21/2002		59.64	982.20
	8/13/2002		59.50	982.34
MW-4	12/30/1998	1036.63	50.53	986.10
	1/8/1999		50.50	986.13
	1/20/1999		50.66	985.97
	2/25/1999		50.32	986.31
	3/11/1999		50.27	986.36
	5/28/1999		50.08	986.55
	6/30/1999		50.04	986.59
	8/30/1999		49.89	986.74
	9/29/2000		52.36	984.27
	12/28/2000		52.52	984.11
	3/29/2001		52.65	983.98
	6/21/2001		52.83	983.80
	3/29/2001		52.65	983.98
	6/21/2001		52.83	983.80
	6/21/2001		52.83	983.80
	10/19/2001		53.27	983.36
	12/14/2001		53.47	983.16



**Table 5**  
***Water Level Measurements in Groundwater Monitoring Wells***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Top of Casing Elevation (1) (ft msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft msl)
MW-4 (cont.)	3/8/2002	1036.63	54.02	982.61
	5/13/2002		54.25	982.38
	6/5/2002		54.50	982.13
	8/12/2002		52.33	984.30 (3)
	11/7/2002		56.26	980.37
	12/4/2002		56.10	980.53
	12/18/2002		56.25	980.38
	1/6/2003		56.75	979.88
MW-5	12/23/1998	1035.35	49.12	986.23
	12/30/1998		49.07	986.28
	1/12/1999		49.03	986.32
	1/20/1999		48.99	986.36
	2/25/1999		48.84	986.51
	3/11/1999		48.8	986.55
	5/28/1999		48.6	986.75
	6/30/1999		48.54	986.81
	8/30/1999		48.41	986.94
	9/29/2000		50.89	984.46
	12/28/2000		51.04	984.31
	3/29/2001		51.18	984.17
	6/21/2001		51.36	983.99
	3/29/2001		51.18	984.17
	6/21/2001		51.36	983.99
	10/19/2001		51.82	983.53
	12/14/2001		52.02	983.33
	3/8/2002		52.55	982.80
	5/13/2002		52.78	982.57
	6/5/2002		53.06	982.29
	8/12/2002		53.37	981.98
	11/7/2002		54.89	980.46
	12/4/2002		54.66	980.69
	12/18/2002		54.82	980.53
	1/6/2003		55.40	979.95
MW-6	12/23/1998	1033.71	47.84	985.87
	12/30/1998		47.8	985.91
	1/8/1999		47.76	985.95
	1/20/1999		47.92	985.79
	2/25/1999		47.56	986.15
	3/11/1999		47.53	986.18



# **Table 5** ***Water Level Measurements in Groundwater Monitoring Wells***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Top of Casing Elevation (1) (ft msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft msl)
MW-6 (cont.)	5/28/1999	1033.71	47.33	986.38
	6/30/1999		47.30	986.41
	8/30/1999		47.14	986.57
	9/29/2000		49.55	984.16
	12/28/2000		49.71	984.00
	3/29/2001		49.84	983.87
	6/21/2001		50.01	983.70
	3/29/2001		49.84	983.87
	6/21/2001		50.01	983.70
	10/19/2001		50.45	983.26
	12/14/2001		50.65	983.06
	3/8/2002		51.20	982.51
	5/13/2002		51.40	982.31
	6/5/2002		51.67	982.04
	8/12/2002		51.95	981.76
	11/7/2002		53.44	980.27
	12/4/2002		53.25	980.46
	12/18/2002		53.38	980.33
	1/6/2003		53.96	979.75
MW-7	12/23/1998	1033.72	48.56	985.16
	12/30/1998		48.51	985.21
	1/8/1999		48.50	985.22
	1/20/1999		48.39	985.33
	2/25/1999		48.25	985.47
	3/11/1999		48.21	985.51
	5/28/1999		48.04	985.68
	6/30/1999		48.01	985.71
	8/30/1999		47.88	985.84
	9/29/2000		50.14	983.58
	12/28/2000		50.28	983.44
	3/29/2001		50.40	983.32
	6/21/2001		50.57	983.15
	10/19/2001		51.00	982.72
	12/14/2001		51.20	982.52
	3/8/2002		51.70	982.02
	5/13/2002		51.92	981.80
	6/5/2002		52.18	981.54
	8/12/2002		52.35	981.37
	11/7/2002		53.78	979.94



**Table 5**  
***Water Level Measurements in Groundwater Monitoring Wells***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Top of Casing Elevation (1) (ft msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft msl)
MW-7 (cont.)	12/4/2002	1033.72	53.71	980.01
	12/18/2002		53.86	979.86
	1/6/2003		54.44	979.28
MW-8	9/29/2000	1032.68	66.37	966.31
	12/28/2000		66.61	966.07
	3/29/2001		66.36	966.32
	6/21/2001		66.50	966.18
	3/29/2001		66.36	966.32
	6/21/2001		66.50	966.18
	10/19/2001		66.91	965.77
	12/14/2001		67.09	965.59
	3/8/2002		67.54	965.14
	5/13/2002		67.69	964.99
	6/5/2002		67.84	964.84
	8/12/2002		68.03	964.65
	11/7/2002		69.18	963.50
	12/4/2002		68.70	963.98
	12/18/2002		68.79	963.89
	1/6/2003		69.25	963.43
PMW-9	8/12/2002	1033.16	51.60	981.56
	11/7/2002		52.94	980.22
	12/4/2002		53.20	979.96
	12/18/2002		52.93	980.23
	1/6/2003		53.48	979.68
PMW-10	8/12/2002	1038.53	56.50	982.03
	11/7/2002		57.93	980.60
	12/4/2002		58.20	980.33
	12/18/2002		57.80	980.73
	1/6/2003		58.47	980.06
PMW-11	8/12/2002	1038.11	56.00	982.11
	11/7/2002		57.35	980.76
	12/4/2002		57.60	980.51
	12/18/2002		57.23	980.88
	1/6/2003		57.89	980.22
PMW-12	8/12/2002	1043.04	60.84	982.20
	11/7/2002		62.26	980.78
	12/4/2002		62.54	980.50
	12/18/2002		62.10	980.94
	1/6/2003		62.82	980.22



**Table 5**  
***Water Level Measurements in Groundwater Monitoring Wells***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Top of Casing Elevation (1) (ft msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (ft msl)
PMW-13	8/12/2002	1030.46	67.70	962.76
	11/7/2002		68.65	961.81
	12/4/2002		68.79	961.67
	12/18/2002		68.28	962.18
	1/6/2003		68.94	961.52
PMW-14	10/22/2002	1035.42	70.68	964.74
	11/7/2002		71.36	964.06
	12/4/2002		70.94	964.48
	12/18/2002		71.03	964.39
	1/6/2003		71.66	963.76
PMW-15	8/12/2002	1037.49	71.07	966.42
	11/7/2002		72.02	965.47
	12/4/2002		72.19	965.30
	12/18/2002		71.76	965.73
	1/6/2003		72.35	965.14
PMW-19	12/4/2002	1026.59	64.17	962.42
	12/18/2002		63.66	962.93
	1/6/2003		64.30	962.29
PMW-20	12/4/2002	1031.68	67.48	964.20
	12/18/2002		66.96	964.72
	1/6/2003		67.54	964.14
PMW-21B	12/4/2002	1035.44	55.05	980.39
	12/18/2002		54.76	980.68
	1/6/2003		55.37	980.07
PMW-22	12/4/2002	1040.92	60.52	980.40
	12/18/2002		60.09	980.83
	1/6/2003		60.82	980.10
PMW-23	12/4/2002	1041.63	60.97	980.66
	12/18/2002		60.56	981.07
	1/6/2003		61.27	980.36
PMW-24	12/4/2002	1041.60	61.14	980.46
	12/18/2002		60.71	980.89
	1/6/2003		61.43	980.17
PMW-25	12/4/2002	1041.23	61.05	980.18
	12/18/2002		60.59	980.64
	1/6/2003		61.29	979.94
PMW-26	12/4/2002	1041.43	60.79	980.64 (4)
	12/18/2002		60.30	981.13
	1/6/2003		61.03	980.40



**Table 5**  
***Water Level Measurements in Groundwater Monitoring Wells***  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

ft msl	feet above mean sea level
ft bgs	feet below ground surface
--	not recorded

**Notes**

- (1) Groundwater monitoring well locations and elevations were surveyed on 26 March 2002 by Bill Carr Survey's, Inc., of Huntington Beach, California, a licensed Land Surveyor. Elevations were surveyed based on the National Vertical Geodetic Datum 1929, City of Los Angeles Benchmark 03-0210, elevation 1034.033 feet.
- (2) Top of casing elevations and depth to groundwater measurements are obtained from Table 1 in the *Third Quarter 2002 Groundwater Monitoring Report*, Brenntag West, Inc. (Former Holchem, Inc./Chase Chemical) Property, Pacoima, California, dated 29 October 2002 and prepared by AG&M.
- (3) Based upon prior depth to water measurements for monitoring well MW-4, the measurement taken on 12 August 2002 appears to be anomalous.
- (4) Well PMW-26 was obstructed during gauging conducted on 4 December 2002. The obstruction was removed on 5 December 2002 and the well was gauged on 6 December 2002, subsequent to purging.



**Table 6**  
***Depth to Groundwater and Thickness of***  
***Free Hydrocarbon Product ("FHP") in FHP Collection Wells (1)***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Elevation of Top of Casing (ft msl)	Pre-Recovery (2)			Post-Recovery (3)		
			Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)	Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)
MW-1  (4)	1/8/2002	1034.93	51.84	52.10	0.26	52.17	52.20	0.03
	1/14/2002		51.87	52.05	0.18	52.31	52.35	0.04
	1/21/2002		51.91	52.05	0.14	52.32	52.35	0.03
	1/28/2002		51.94	52.13	0.19	52.32	52.35	0.03
	2/4/2002		51.98	52.13	0.15	52.32	52.36	0.04
	2/11/2002		52.02	52.20	0.18	52.32	52.35	0.03
	2/25/2002		52.10	52.24	0.14	52.32	52.37	0.05
	3/11/2002		52.18	52.35	0.17	52.33	52.36	0.03
	3/18/2002		52.24	52.38	0.14	52.33	52.37	0.04
	3/25/2002		52.27	52.42	0.15	52.32	52.37	0.05
	4/1/2002		52.30	52.52	0.22	52.35	52.41	0.06
	4/15/2002		52.40	52.61	0.21	52.46	52.50	0.04
	4/22/2002		52.40	52.76	0.36	--	--	--
	4/29/2002		52.42	52.74	0.32	--	--	--
	5/10/2002		52.42	53.12	0.70	--	--	--
	5/24/2002		--	--	--	--	--	--
	5/28/2002		--	--	--	--	--	--
	6/17/2002		--	--	--	--	--	--
	6/28/2002		52.81	54.08	1.27	--	--	--
	7/8/2002		--	--	--	--	--	--
	7/15/2002		--	--	--	--	--	--
	7/22/2002		--	--	--	--	--	--
	7/29/2002		--	--	--	--	--	--
	8/5/2002		--	--	--	--	--	--
	8/12/2002		--	--	--	--	--	--
	8/23/2002		--	--	--	--	--	--
	9/3/2002		--	--	--	--	--	--
	9/9/2002		--	--	--	--	--	--
	9/16/2002		--	--	--	--	--	--
	9/23/2002		--	--	--	--	--	--
	9/30/2002		--	--	--	--	--	--
	10/14/2002		--	--	--	--	--	--
	10/21/2002		--	--	--	--	--	--
	10/28/2002		--	--	--	--	--	--
	11/4/2002		--	--	--	--	--	--
	11/11/2002		--	--	--	--	--	--
	11/19/2002		--	--	--	--	--	--
	11/25/2002		--	--	--	--	--	--
	12/2/2002		--	--	--	--	--	--
	12/9/2002		--	--	--	--	--	--



**Table 6**  
**Depth to Groundwater and Thickness of**  
**Free Hydrocarbon Product ("FHP") in FHP Collection Wells (1)**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Elevation of Top of Casing (ft msl)	Pre-Recovery (2)			Post-Recovery (3)		
			Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)	Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)
MW-2	1/8/2002	1035.14	52.16	52.59	0.43	52.24	52.25	0.01
	1/14/2002		52.17	52.36	0.19	52.23	52.25	0.02
	1/21/2002		52.21	52.48	0.27	52.32	52.33	0.01
	1/28/2002		52.24	52.49	0.25	52.29	52.31	0.02
	2/4/2002		52.29	52.51	0.22	52.31	52.34	0.03
	2/11/2002		52.32	52.56	0.24	52.38	52.42	0.04
	2/25/2002		52.40	52.7	0.30	52.93	53.13	0.20
	3/11/2002		52.49	52.71	0.22	52.51	52.52	0.01
	3/18/2002		52.54	52.71	0.17	52.62	52.64	0.02
	3/25/2002		52.57	52.72	0.15	52.63	52.64	0.01
	4/1/2002		52.61	52.79	0.18	52.68	52.74	0.06
	4/15/2002		52.70	52.75	0.05	52.72	52.76	0.04
	4/22/2002		52.72	52.77	0.05	--	--	--
	4/29/2002		52.74	52.82	0.08	--	--	--
	5/10/2002		52.77	52.92	0.15	52.95	52.96	0.01
	5/24/2002		52.88	52.9	0.02	52.94	52.95	0.01
	5/28/2002		52.93	52.95	0.02	52.98	52.99	0.01
	6/17/2002		53.11	53.14	0.03	53.15	53.16	0.01
	6/28/2002		53.21	53.27	0.06	53.26	53.27	0.01
	7/8/2002		53.30	53.42	0.12	53.32	53.35	0.03
	7/15/2002		53.37	53.43	0.06	53.41	53.42	0.01
	7/22/2002		53.42	53.51	0.09	53.45	53.48	0.03
	7/29/2002		53.46	53.52	0.06	53.48	53.50	0.02
	8/5/2002		53.44	53.5	0.06	53.45	53.49	0.04
	8/12/2002		53.46	53.53	0.07	53.47	53.49	0.02
	8/23/2002		53.66	53.91	0.25	53.68	53.71	0.03
	9/3/2002		53.77	53.89	0.12	53.8	53.92	0.12
	9/9/2002		53.83	53.95	0.12	53.85	53.88	0.03
	9/16/2002		53.60	54.70	1.10	53.92	53.96	0.04
	9/23/2002		53.97	54.09	0.12	53.98	53.99	0.01
	9/30/2002		54.04	54.21	0.17	54.06	54.08	0.02
	10/14/2002		54.10	54.40	0.30	--	--	--
	10/21/2002		54.05	54.20	0.15	--	--	--
	10/28/2002		54.03	54.05	0.02	--	--	--
	11/4/2002		54.35	54.55	0.20	54.85	54.87	0.02
	11/11/2002		54.45	54.78	0.33	54.48	54.49	0.01
	11/19/2002		54.49	54.79	0.30	54.50	54.51	0.01
	11/25/2002		54.65	54.86	0.21	54.59	54.63	0.04
	12/2/2002		54.66	54.91	0.25	54.54	54.55	0.01
	12/9/2002		54.07	54.91	0.84	54.07	54.07	0.00



**Table 6**  
**Depth to Groundwater and Thickness of**  
**Free Hydrocarbon Product ("FHP") in FHP Collection Wells (1)**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Elevation of Top of Casing (ft msl)	Pre-Recovery (2)			Post-Recovery (3)		
			Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)	Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)
MW-3	1/8/2002	1035.18	52.04	53.89	1.85	52.21	52.30	0.09
	1/14/2002		52.09	53.84	1.75	52.39	52.45	0.06
	1/21/2002		52.12	53.70	1.58	52.30	52.35	0.05
	1/28/2002		52.14	53.88	1.74	52.42	52.48	0.06
	2/4/2002		52.19	53.49	1.30	52.49	52.54	0.05
	2/11/2002		52.21	53.90	1.69	52.42	52.49	0.07
	2/25/2002		52.30	53.94	1.64	52.51	52.56	0.05
	3/11/2002		52.35	54.25	1.90	52.56	52.70	0.14
	3/18/2002		52.41	54.24	1.83	52.62	52.70	0.08
	3/25/2002		52.43	54.28	1.85	52.62	52.65	0.03
	4/1/2002		52.46	52.74	0.28	52.72	52.77	0.05
	4/15/2002		52.56	54.43	1.87	52.79	52.84	0.05
	4/22/2002		52.58	54.48	1.90	52.95	52.98	0.03
	4/29/2002		52.66	54.48	1.82	52.82	52.87	0.05
	5/10/2002		52.63	54.57	1.94	52.85	52.89	0.04
	5/24/2002		52.73	54.72	1.99	52.95	52.98	0.03
	5/28/2002		52.77	54.82	2.05	53.01	53.03	0.02
	6/17/2002		52.95	55.20	2.25	53.04	53.07	0.03
	6/28/2002		53.07	55.20	2.13	53.31	53.42	0.11
	7/8/2002		53.14	55.36	2.22	53.85	53.89	0.04
	7/15/2002		53.22	55.35	2.13	53.48	53.55	0.07
	7/22/2002		53.31	55.53	2.22	53.55	53.62	0.07
	7/29/2002		53.34	55.3	1.96	53.62	53.81	0.19
	8/5/2002		53.35	55.11	1.76	53.6	53.67	0.07
	8/12/2002		53.38	55.32	1.94	53.63	53.69	0.06
	8/23/2002		53.46	55.90	2.44	53.73	53.91	0.18
	9/3/2002		53.59	56.96	3.37	53.88	54.44	0.56
	9/9/2002		53.64	56.18	2.54	53.88	54.24	0.36
	9/16/2002		53.69	56.19	2.50	54.12	54.45	0.33
	9/23/2002		53.76	56.33	2.57	54.06	54.21	0.15
	9/30/2002		53.83	56.34	2.51	54.11	54.42	0.31
	10/14/2002		54.00	56.40	2.40	54.00	54.30	0.30
	10/21/2002		54.00	55.40	1.40	53.30	54.40	1.10
	10/28/2002		53.03	54.09	1.06	54.03	54.03	0.00
	11/4/2002		54.23	56.23	2.00	54.39	54.48	0.09
	11/11/2002		54.27	56.12	1.85	54.46	54.55	0.09
	11/19/2002		54.36	56.17	1.81	54.02	54.54	0.52
	11/25/2002		54.44	56.02	1.58	54.58	54.62	0.04
	12/2/2002		54.56	56.07	1.51	54.67	54.69	0.02
	12/9/2002		54.05	56.09	2.04	54.07	54.08	0.01



**Table 6**  
***Depth to Groundwater and Thickness of***  
***Free Hydrocarbon Product ("FHP") in FHP Collection Wells (1)***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	Elevation of Top of Casing (ft msl)	Pre-Recovery (2)			Post-Recovery (3)		
			Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)	Depth to Product (ft bgs)	Depth to Water (ft bgs)	Product Thickness (ft)
PMW-16 (6)	10/9/2002	1035.30	54.13	56.41	2.28	--	--	--
	10/28/2002		54.27	56.82	2.55	--	--	--
PMW-17 (6)	10/9/2002	1035.22	53.86	56.83	2.97	--	--	--
	10/28/2002		54.04	56.98	2.94	--	--	--
PMW-18 (6)	10/9/2002	1035.32	53.92	57.29	3.37	--	--	--
	10/28/2002		54.09	57.38	3.29	--	--	--

**Abbreviations**

ft      feet  
ft bgs   feet below ground surface.  
ft msl   feet relative to mean sea level  
--      no data collected (see Note 4 below)

**Notes**

- (1) Only data collected during the most recent 12 months of FHP monitoring are provided above. For older data, please refer to previously submitted progress reports.
- (2) Pre-Recovery measurement immediately prior to removal of product from the well.
- (3) Post-Recovery measurement immediately following removal of product from the well.
- (4) "--" indicates that no data was collected due to (1) a drop in the groundwater level below the total depth of the well, (2) operational difficulties with the pump, (3) pump not yet installed; or (4) field data was anomalous.
- (5) During the time period from May through December 2002, the groundwater and FHP levels dropped below the bottom of MW-1; therefore, no product was recoverable.
- (6) Wells PMW-16, PMW-17, and PMW-18 were installed in late 2002 and will be incorporated into the proposed expanded FHP Collection System.



**Table 7*****Summary of Free Hydrocarbon Product ("FHP") Collection (1)***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

<b>Well</b>	<b>Date</b>	<b>Product Recovered (gallons) (2)</b>	<b>Cumulative Recovery (gallons)</b>
MW-1 (3)  (4) (4) (4) (4) (4) (4) (4) (4)	January 2002	7	3,249
	February 2002	4.5	3,253
	March 2002	2.5	3,256
	April 2002	1.5	3,257
	May 2002	0	3,257
	June 2002	0	3,257
	July 2002	0	3,257
	August 2002	0	3,257
	September 2002	0	3,257
	October 2002	0	3,257
	November 2002	0	3,257
	December 2002	0	3,257
MW-2 (5)	January 2002	4	741
	February 2002	3	744
	March 2002	3	747
	April 2002	1	748
	May 2002	0.5	748
	June 2002	0.5	749
	July 2002	0.8	749
	August 2002	1.4	751
	September 2002	3.4	754
	October 2002	0.1	754
	November 2002	1	754
	December 2002	-- (6)	754
MW-3 (5)	January 2002	23.5	1,075
	February 2002	15.5	1,091
	March 2002	15.5	1,106
	April 2002	23	1,129
	May 2002	20	1,149
	June 2002	14	1,163
	July 2002	38.7	1,202
	August 2002	14.2	1,216
	September 2002	66.4	1,282
	October 2002	14.5	1,297
	November 2002	7.1	1,304
	December 2002	20	1,324
<b>Total FHP Recovered From all Wells Through December 2002:</b>			<b>5,340</b>



**Table 7**  
***Summary of Free Hydrocarbon Product ("FHP") Collection (1)***  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Notes**

- (1) Only data collected during the most recent 12 months of FHP monitoring are provided above. For older data, please refer to previously submitted progress reports.
- (2) FHP recovery totals above are based on information recorded by Price Pfister personnel.
- (3) FHP recovery by Price Pfister, Inc. was initiated at well MW-1 on 11 December 1995. From 11 December 1995 through 12 February 1996, FHP recovery was performed by manual bailing. An FHP recovery pump was installed in well MW-1 on 12 February 1996.
- (4) During the time period from May through December 2002, the groundwater and FHP levels dropped below the bottom of MW-1; therefore, no product was recoverable.
- (5) FHP recovery pumps were installed at wells MW-2 and MW-3 on 19 August 1998.
- (6) Approximately 20 gallons of FHP was recovered from collection wells MW-2 and MW-3 in December 2002; however, it was unclear how much FHP was removed from each well. Therefore, the entire amount of FHP removed was attributed to well MW-3.



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)														Other VOCs
					Primary VOCs					Secondary VOCs									
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Central Building P Area																			
B2	SS-B2-5	5	7/22/1997	8240 (DTSC)	0.230	0.003	0.003	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	Acetone = 0.064
	SS-B2-5 (Dup)	5	7/22/1997	8240 (EKI)	0.049	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B2-10	10	7/22/1997	8240 (DTSC)	0.032	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B2-10 (Dup)	10	7/22/1997	8240 (EKI)	0.140	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B2-15	15	7/22/1997	8240 (DTSC)	0.046	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B2-15 (Dup)	15	7/22/1997	DTSC (Dup)	0.057	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B2-15 (Dup)	15	7/22/1997	8240 (EKI)	0.044	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B2-20	20	7/22/1997	8240 (DTSC)	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SS-B2-20 (Dup)	20	7/22/1997	8240 (EKI)	0.0086	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
B3A	SS-B3A-5	5	7/22/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-B3A-5 (Dup)	5	7/22/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B3A-10	10	7/22/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B3A-10 (Dup)	10	7/22/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B3A-15	15	7/22/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B3A-15 (Dup)	15	7/22/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B3A-20	20	7/22/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B3A-25	25	7/22/1997	8240 (DTSC)	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
B3C	SS-B3C-5	5	7/23/1997	8240 (DTSC)	0.002	0.0009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-B3C-5 (Dup)	5	7/23/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B3C-10	10	7/23/1997	8240 (DTSC)	ND	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B3C-10 (Dup)	10	7/23/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B3C-15	15	7/23/1997	8240 (DTSC)	0.002	0.003	ND	ND	ND	ND	0.0005	ND	ND	ND	ND	ND	ND		
	SS-B3C-15 (Dup)	15	7/23/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B3C-20	20	7/23/1997	8240 (DTSC)	ND	0.0007	ND	ND	ND	ND	0.0006	ND	ND	ND	ND	ND	ND		
	SS-B3C-25	25	7/23/1997	8240 (DTSC)	0.0009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
MS1	MS1-5-6	5 to 6	12/5/2002	8260 (EKI)	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00274	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137		
PMW-26	PMW26-10-11	10 to 11	12/3/2002	8260 (EKI)	0.0247	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00252	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
	PMW26-25-25.5	25 to 25.5	12/3/2002	8260 (EKI)	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00239	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120		
PSVE-1	PSVE-1-1-2	1 to 2	6/26/2002	8260B (EKI)	0.670	<0.00133	0.00217	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
	PSVE-1-9.5-10	9.5 to 10	6/26/2002	8260B (EKI)	0.147	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	0.00222	<0.00133	0.00162	<0.00133	<0.00133	<0.00133		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)														Other VOCs
					Primary VOCs					Secondary VOCs									
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Central Building P Area																			
PSVE-2	PSVE-2-1.5-2.5	1.5 to 2.5	6/25/2002	8260B (EKI)	188	0.847	0.462	<0.33	<0.33	<0.33	<0.33	0.650	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	Chloromethane = 0.427
	PSVE-2-8-8.5	8 to 8.5	6/25/2002	8260B (EKI)	0.0211	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	
	PSVE-2-15.5-16.5	15.5 to 16.5	6/25/2002	8260B (EKI)	0.00277	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	
	PSVE-2-25.5-26.5	25.5 to 26.5	6/25/2002	8260B (EKI)	0.00785	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	
	PSVE-2-40.5-41.5	40.5 to 41.5	6/25/2002	8260B (EKI)	0.0355	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	
	PSVE-2-55.5-56.5	55.5 to 56.5	6/25/2002	8260B (EKI)	0.0495	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126
PSVE-3	PSVE-3-2.5-3.5	2.5 to 3.5	6/26/2002	8260B (EKI)	0.0648	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	
	PSVE-3-7.5-8.5	7.5 to 8.5	6/26/2002	8260B (EKI)	0.123	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	
	PSVE-3-41.5-42	41.5 to 42	6/26/2002	8260B (EKI)	0.0232	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	
PSVE-4	PSVE-4-1.5-2.5	1.5 to 2.5	6/25/2002	8260B (EKI)	0.095	0.00135	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	0.00138	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	
	PSVE-4-7.5-8.5	7.5 to 8.5	6/25/2002	8260B (EKI)	0.0765	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	
SB-6	SB-06-5-5.5	5 to 5.5	4/10/2001	8260B (EKI)	0.052	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	1,4-dioxane = 0.96
	SB-06-10-10.5	10 to 10.5	4/10/2001	8260B (EKI)	0.028	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	1,4-dioxane = 0.4
SB-7	SB-07-5-5.5	5 to 5.5	4/10/2001	8260B (EKI)	0.029	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
	SB-07-10-10.5	10 to 10.5	4/10/2001	8260B (EKI)	0.0074	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
SB-8	SB-08-10-10.5	10 to 10.5	4/10/2001	8260B (EKI)	0.036	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
	SB-08-15-15.5	15 to 15.5	4/10/2001	8260B (EKI)	0.120	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
SB-9	SB-09-9.5-10	9.5 to 10	4/10/2001	8260B (EKI)	0.013	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
	SB-09-20-20.5	20 to 20.5	4/10/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
SVMW-202	VMW-2-20.5-21.5	20.5 to 21.5	3/20/2002	8260B (EKI)	0.00629	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	
	VMW-2-30.5-31.5	30.5 to 31.5	3/20/2002	8260B (EKI)	0.171	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	
	VMW-2-45.5-46.5	45.5 to 46.5	3/20/2002	8260B (EKI)	0.0537	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	
SVMW-205	PVMW-5-1-2	1 to 2	7/17/2002	8260B (EKI)	0.025	<0.00125	0.00292	<0.00125	<0.00125	<0.00125	<0.00125	<0.004	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	
	PVMW-5-7-8	7 to 8	7/17/2002	8260B (EKI)	<0.00149	<0.00149	<0.00149	<0.00149	<0.00149	<0.00149	<0.00149	<0.00477	<0.00149	<0.00149	<0.00149	<0.00149	<0.00149	<0.00149	
SVMW-207	PVMW-7-3-4	3 to 4	6/28/2002	8260B (EKI)	0.0756	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.00259	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	
	PVMW-7-7.5-8.5	7.5 to 8.5	6/28/2002	8260B (EKI)	0.00483	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00262	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	
	PVMW-7-50.5-51.5	50.5 to 51.5	6/28/2002	8260B (EKI)	0.00291	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00254	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	
SVMW-208	PVMW-8-1-2	1 to 2	6/28/2002	8260B (EKI)	0.0326	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00248	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	
	PVMW-8-7.5-8.5	7.5 to 8.5	6/28/2002	8260B (EKI)	0.0296	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00256	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	
	PVMW-8-26-27	26 to 27	6/28/2002	8260B (EKI)	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00262	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	
	PVMW-8-50.5-51.5	50.5 to 51.5	6/28/2002	8260B (EKI)	0.00277	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00266	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	
SVMW-209	PVMW-9-1.5-2.5	1.5 to 2.5	6/25/2002	8260B (EKI)	0.0670	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	0.00239	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	
	PVMW-9-13-14	13 to 14	6/27/2002	8260B (EKI)	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00278	<0.00139	0.00208	<0.00139	<0.00139	<0.00139	<0.00139	



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs							Secondary VOCs								
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Central Building P Area																				
SVMW-210	PVMW-10-1-2	1 to 2	6/27/2002	8260B (EKI)	0.00591	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131		
	PVMW-10-7.5-8.5	7.5 to 8.5	6/27/2002	8260B (EKI)	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	0.00163	<0.00144	<0.00144	<0.00144	<0.00144		
SVMW-211	PVMW-11-3-4	3 to 4	7/1/2002	8260B (EKI)	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.003	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		
	PVMW-11-10.5-11.5	10.5 to 11.5	7/1/2002	8260B (EKI)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.0025	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
W1	W1-1-1.5	1 to 1.5	11/26/2002	8260 (EKI)	0.0363	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	<0.00292	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146		
	W1-9.5-10	9.5 to 10	11/26/2002	8260 (EKI)	0.0289	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00250	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
	W1-25-25.5	25 to 25.5	11/26/2002	8260 (EKI)	0.0109	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00248	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124		
	W1-44.5-45	44.5 to 45	11/26/2002	8260 (EKI)	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00266	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
W2	W2-1-1.5	1 to 1.5	12/2/2002	8260 (EKI)	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00288	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144		
	W2-10-11	10 to 11	12/2/2002	8260 (EKI)	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00302	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151		
W3	W3-1-2	1 to 2	12/2/2002	8260 (EKI)	0.00332	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00288	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144		
	W3-10.5-11.5	10.5 to 11.5	12/2/2002	8260 (EKI)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00250	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
W4	W4-1-2	1 to 2	12/2/2002	8260 (EKI)	0.0376	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00264	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132		
	W4-10-11	10 to 11	12/2/2002	8260 (EKI)	0.0214	<0.00119	<0.00119	<0.00119	<0.00119	<0.00119	<0.00119	<0.00237	<0.00119	<0.00119	<0.00119	<0.00119	<0.00119	<0.00119		
W5	W5-1.5-2.5	1.5 to 2.5	12/2/2002	8260 (EKI)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00250	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
	W5-10-11	10 to 11	12/2/2002	8260 (EKI)	<0.00140	<0.00140	<0.00140	<0.00140	<0.00140	<0.00140	<0.00140	<0.00280	<0.00140	<0.00140	<0.00140	<0.00140	<0.00140	<0.00140		
W6	W6-2-2.5	2 to 2.5	12/3/2002	8260 (EKI)	0.0778	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00266	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
	W6-5-6	5 to 6	12/3/2002	8260 (EKI)	0.0295	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00262	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131		
W7	W7-5-5.5	5 to 5.5	12/4/2002	8260 (EKI)	0.0161	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00241	<0.00121	<0.00121	<0.00121	0.00390	<0.00121	0.00128 (2)		
	W7-15-15.5	15 to 15.5	12/4/2002	8260 (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00252	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
W8	W8-7.5-8.5	7.5 to 8.5	12/3/2002	8260 (EKI)	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00265	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
	W8-15-16	15 to 16	12/3/2002	8260 (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00251	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
	W8-25-26	25 to 26	12/3/2002	8260 (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00251	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
W9	W9-1.5-2.5	1.5 to 2.5	12/4/2002	8260 (EKI)	0.00342	<0.00123	<0.00123	<0.00123	<0.00123	<0.00123	<0.00123	<0.00246	<0.00123	<0.00123	<0.00123	<0.00123	<0.00123	<0.00123		
	W9-10-11	10 to 11	12/4/2002	8260 (EKI)	0.00624	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00269	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135		
W10	W10-2.5-3	2.5 to 3	12/4/2002	8260 (EKI)	0.00275	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00242	<0.00121	<0.00121	<0.00121	<0.00121	0.00242	<0.00121	4-isopropyltoluene = 0.00346; Styrene = 0.0103	
W11	W11-10-11	10 to 11	12/6/2002	8260 (EKI)	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00283	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142		
	W11-20-21	20 to 21	12/6/2002	8260 (EKI)	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00258	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129		
W12	W12-3-4	3 to 4	12/4/2002	8260 (EKI)	0.0547	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	<0.00259	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130		
	W12-17-18	17 to 18	12/4/2002	8260 (EKI)	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	<0.650	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325		
W14	W14-1-2	1 to 2	12/4/2002	8260 (EKI)	0.0134	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00274	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137		
	W14-10-11	10 to 11	12/4/2002	8260 (EKI)	0.00758	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00266	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs							Secondary VOCs								
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Central Building P Area																				
W15	W15-7.5-8.5	7.5 to 8.5	12/5/2002	8260 (EKI)	0.00352	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00299	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150		
	W15-12.5-13.5	12.5 to 13.5	12/5/2002	8260 (EKI)	0.0341	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00255	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128		
	W15-28-29	28 to 29	12/5/2002	8260 (EKI)	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00241	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121		
W16	W16-8-9	8 to 9	12/5/2002	8260 (EKI)	0.0946	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	<0.00260	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130	<0.00130		
	W16-13-14	13 to 14	12/5/2002	8260 (EKI)	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00281	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141		
	W16-28-29	28 to 29	12/5/2002	8260 (EKI)	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00254	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127		
W17	W17-10.5-11.5	10.5 to 11.5	12/2/2002	8260 (EKI)	0.00544	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00263	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132		
	W17-22-23	22 to 23	12/2/2002	8260 (EKI)	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00266	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
	W17-32-33	32 to 33	12/2/2002	8260 (EKI)	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00239	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120		
W18	W18-6.5-7.5	6.5 to 7.5	12/5/2002	8260 (EKI)	19.2	0.784	<0.372	<0.372	<0.372	<0.372	<0.372	1.06	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372		
W19	W19-5-6	5 to 6	12/5/2002	8260 (EKI)	0.00417	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	<0.00235	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118		
	W19-10-10.5	10 to 10.5	12/5/2002	8260 (EKI)	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00290	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145		
W20	W20-5-6	5 to 6	12/2/2002	8260 (EKI)	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00256	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128		
	W20-19-20	19 to 20	12/2/2002	8260 (EKI)	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116	<0.00231	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116		
W21	W21-4-5	4 to 5	12/2/2002	8260 (EKI)	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00274	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137		
	W21-19-20	19 to 20	12/2/2002	8260 (EKI)	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00248	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124		
W22	W22-11.5-12.5	11.5 to 12.5	12/5/2002	8260 (EKI)	<0.00138	<0.00138	<0.00138	<0.00138	<0.00138	<0.00138	<0.00138	<0.00275	<0.00138	<0.00138	<0.00138	<0.00138	<0.00138	<0.00138		
	W22-26.5-27.5	26.5 to 27.5	12/5/2002	8260 (EKI)	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00270	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135		
W23	W23-4-5	4 to 5	12/2/2002	8260 (EKI)	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00254	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127		
	W23-18-19	18 to 19	12/2/2002	8260 (EKI)	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00247	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124		
W24	W24-6.5-7.5	6.5 to 7.5	12/5/2002	8260 (EKI)	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00269	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135		
W25	W25-1.5-2.5	1.5 to 2.5	12/6/2002	8260 (EKI)	0.0142	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00264	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	0.00149 (3)	
	W25-10-11	10 to 11	12/6/2002	8260 (EKI)	0.0255	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00242	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	Acetone = 0.236; 2-butanone = 0.0617; 4-isopropyltoluene = 0.00172	
	W25-20-21	20 to 21	12/6/2002	8260 (EKI)	6.31	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	0.885	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326		
W26	W26-1.5-2.5	1.5 to 2.5	12/5/2002	8260 (EKI)	3.52	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	1.23	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329		
	W26-10-11	10 to 11	12/5/2002	8260 (EKI)	1.80	<0.315	<0.315	<0.315	<0.315	<0.315	<0.315	0.837	<0.315	<0.315	<0.315	<0.315	<0.315	<0.315		
	W26-25-26	25 to 26	12/5/2002	8260 (EKI)	3.32	<0.363	<0.363	<0.363	<0.363	<0.363	<0.363	1.36	<0.363	<0.363	<0.363	<0.363	<0.363	<0.363		
	W26-35.5-36.5	35.5 to 36.5	12/5/2002	8260 (EKI)	0.0982	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00271	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136		
W27	W27-3-4	3 to 4	12/3/2002	8260 (EKI)	0.00268	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00273	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)														Other VOCs
					Primary VOCs					Secondary VOCs									
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Building A Area																			
#5	#5	10	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0001	NA	
#6	#6	10	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0007	<0.0004	<0.0001	NA	
A1	A1-10-10.5	10 to 10.5	8/27/2002	8260 (EKI)	<0.439	<0.439	<0.439	<0.439	<0.439	<0.439	<0.439	<0.877	<0.439	<0.439	<0.439	<0.439	<0.439	<0.439	
	A1-30-30.5 (5)	30 to 30.5	8/27/2002	8260 (EKI)	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	0.793	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	
	A1-45-45.5	45 to 45.5	8/27/2002	8260 (EKI)	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	<0.693	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347	
A2	A2-1-1.5	1 to 1.5	8/27/2002	8260 (EKI)	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00283	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	
	A2-10-10.5	10 to 10.5	8/27/2002	8260 (EKI)	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.00319	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
	A2-24.5-25	24.5 to 25	8/27/2002	8260 (EKI)	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00287	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	
	A2-45-45.5	45 to 45.5	8/27/2002	8260 (EKI)	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00294	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	
A3	A3-1-1.5	1 to 1.5	8/27/2002	8260 (EKI)	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	<0.825	<0.413	<0.413	<0.413	<0.413	<0.413	<0.413	
	A3-10-10.5	10 to 10.5	8/27/2002	8260 (EKI)	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	<0.677	<0.339	<0.339	<0.339	<0.339	<0.339	<0.339	
	A3-25-25.5	25 to 25.5	8/27/2002	8260 (EKI)	0.925	<0.342	<0.342	<0.342	<0.342	<0.342	<0.342	0.954	<0.342	<0.342	<0.342	<0.342	<0.342	<0.342	
	A3-45-45.5	45 to 45.5	8/27/2002	8260 (EKI)	<0.382	<0.382	<0.382	<0.382	<0.382	<0.382	<0.382	<0.763	<0.382	<0.382	<0.382	<0.382	<0.382	<0.382	
A4	A4-10-10.5	10 to 10.5	8/27/2002	8260 (EKI)	0.0102	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00277	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	
	A4-25-25.5	25 to 25.5	8/27/2002	8260 (EKI)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.95	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	
	A4-45-45.5	45 to 45.5	8/27/2002	8260 (EKI)	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	<0.672	<0.336	<0.336	<0.336	<0.336	<0.336	<0.336	
A5	A5-1-1.5	1 to 1.5	8/26/2002	8260 (EKI)	1.69	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.699	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	
	A5-9.5-10	9.5 to 10	8/26/2002	8260 (EKI)	0.0115	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	<0.00291	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	<0.00146	
	A5-25.5-26	25.5 to 26	8/26/2002	8260 (EKI)	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00269	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	
A6	A6-10-10.5	10 to 10.5	8/26/2002	8260 (EKI)	0.0119	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00267	<0.00134	<0.00134	<0.00134	0.00156	<0.00134	<0.00134	
A7	A7-1-1.5	1 to 1.5	8/26/2002	8260 (EKI)	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00273	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137	
	A7-9.5-10	9.5 to 10	8/26/2002	8260 (EKI)	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00278	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	
A8	A8-10-10.5	10 to 10.5	8/26/2002	8260 (EKI)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.0025	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	
A9	A9-10-10.5	10 to 10.5	8/26/2002	8260 (EKI)	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.00299	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	
A10	A10-1-1.5	1 to 1.5	8/28/2002	8260 (EKI)	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	0.766	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	
	A10-10-10.5	10 to 10.5	8/28/2002	8260 (EKI)	<0.313	<0.313	<0.313	<0.313	<0.313	<0.313	<0.313	0.882	<0.313	<0.313	<0.313	<0.313	<0.313	<0.313	
	A10-24.5-25	24.5 to 25	8/28/2002	8260 (EKI)	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00375	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	
	A10-45-45.5	45 to 45.5	8/28/2002	8260 (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00252	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	
A11	A11-1-1.5	1 to 1.5	8/26/2002	8260 (EKI)	<0.351	<0.351	<0.351	<0.351	<0.351	<0.351	<0.351	1.10	<0.351	<0.351	<0.351	<0.351	<0.351	<0.351	
	A11-10-10.5	10 to 10.5	8/26/2002	8260 (EKI)	<0.357	<0.357	<0.357	<0.357	<0.357	<0.357	<0.357	0.994	<0.357	<0.357	<0.357	<0.357	<0.357	<0.357	
	A11-24.5-25	24.5 to 25	8/26/2002	8260 (EKI)	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	<0.697	<0.349	<0.349	<0.349	<0.349	<0.349	<0.349	
	A11-44.5-45	44.5 to 45	8/26/2002	8260 (EKI)	<0.367	<0.367	<0.367	<0.367	<0.367	<0.367	<0.367	0.746	<0.367	<0.367	<0.367	<0.367	<0.367	<0.367	



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs					Secondary VOCs										
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Building A Area																				
A12	A12-1-1.5	1 to 1.5	8/28/2002	8260 (EKI)	0.00227	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00271	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136		
	A12-10-10.5	10 to 10.5	8/28/2002	8260 (EKI)	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.00259	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013		
	A12-45-45.5	45 to 45.5	8/28/2002	8260 (EKI)	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00242	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121		
A14	A14-10-10.5	10 to 10.5	8/27/2002	8260 (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00252	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
	A14-30-30.5	30 to 30.5	8/27/2002	8260 (EKI)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.0025	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
C1	SS-C1-8	8	6/4/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C1-8 (Dup)	8	6/4/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-C1-20	20	6/4/1997	8240 (DTSC)	0.039	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C1-20 (Dup)	20	6/4/1997	8240 (DTSC)	0.017	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C1-20 (Dup)	20	6/4/1997	8240 (EKI)	0.096	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-C1-40	40	6/4/1997	8240 (DTSC)	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-C1-40 (Dup)	40	6/4/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
C2	SS-C2-06	0.5	6/4/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C2-06 (Dup)	0.5	6/4/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
C3	SS-C3-06	0.5	6/4/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C3-06 (Dup)	0.5	6/4/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-C3-3	3	6/4/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C3-3 (Dup)	3	6/4/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
C4	SS-C4-06	0.5	7/23/1997	8240( DTSC)	0.048	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C4-06 (Dup)	0.5	7/23/1997	8240 (EKI)	0.018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	Methylene chloride = 0.018	
	SS-C4-5	5	7/23/1997	8240 (DTSC)	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C4-5 (Dup)	5	7/23/1997	8240 (EKI)	0.0025	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-C4-10	10	7/23/1997	8240 (DTSC)	0.0027	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C4-15	15	7/23/1997	8240 (DTSC)	0.081	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C4-15 (Dup)	15	7/23/1997	8240 (EKI)	0.180	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	Acetone = 0.065	
	SS-C4-20	20	7/23/1997	8240 (DTSC)	0.340	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C4-25	25	7/23/1997	8240 (DTSC)	0.470	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-C4-25 (Dup)	25	7/23/1997	8240 (EKI)	0.160	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016	<0.010	<0.010		
MW-4	MW-4-16	16	12/29/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-4-21	21	12/29/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-4-41	41	12/29/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-4-46	46	12/29/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs					Secondary VOCs										
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Building A Area																				
MW-5	MW-5-6	6	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-5-16	16	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-5-21	21	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-5-31	31	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
MW-6	MW-6-11	11	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-6-21	21	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-6-31	31	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-6-36	36	12/22/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
MW-7	MW-7-10.5	10.5	12/21/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-7-21	21	12/21/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-7-26	26	12/21/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-7-36	36	12/21/1998	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
MW-8	MW-8-11	11	5/23/2000	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-8-21	21	5/23/2000	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-8-31	31	5/23/2000	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	MW-8-41	41	5/23/2000	8260 (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
PMW-14	PMW14-26-26.5	26 to 26.5	9/26/2002	8260 (EKI)	0.693	<0.231	<0.231	<0.231	<0.231	<0.231	<0.231	<0.461	<0.231	<0.231	<0.231	<0.231	<0.231	<0.231		
	PMW14-45-45.5	45 to 45.5	9/26/2002	8260 (EKI)	0.413	<0.203	0.210	<0.203	<0.203	<0.203	<0.203	<0.406	<0.203	<0.203	<0.203	<0.203	<0.203	<0.203		
	PMW14-60-60.5	60 to 60.5	9/26/2002	8260 (EKI)	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153	<0.00306	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153	<0.00153		
PMW-16	PMW16-1.5-2	1.5 to 2	9/25/2002	8260 (EKI)	0.00849	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00277	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139		
	PMW16-9.5-10	9.5 to 10	9/25/2002	8260 (EKI)	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00261	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131		
	PMW16-24.5-25	24.5 to 25	9/25/2002	8260 (EKI)	0.0786	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00266	<0.00133	<0.00133	0.00289	0.00252	<0.00133	<0.00133		
	PMW16-45-45.5	45 to 45.5	9/25/2002	8260 (EKI)	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00277	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139		
PMW-17	PMW17-9.5-10	9.5 to 10	9/30/2002	8260 (EKI)	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.0029	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145		
PMW-18	PMW18-4-4.5	4 to 4.5	9/24/2002	8260 (EKI)	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329	<0.658	<0.329	<0.329	<0.329	<0.329	<0.329	<0.329		
	PMW18-27.5-28	27.5 to 28	9/24/2002	8260 (EKI)	0.827	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371	<0.741	<0.371	<0.371	<0.371	<0.371	<0.371	<0.371		
	PMW18-45-45.5	45 to 45.5	9/24/2002	8260 (EKI)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.659	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33		
SB-12	SB-12-5.5-6.5	5.5 to 6.5	3/20/2002	8260B (EKI)	0.0279	<0.0013	0.0154	0.00302	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013		
	SB-12-10.5-11.5	10.5 to 11.5	3/20/2002	8260B (EKI)	0.399	<0.156	<0.156	<0.156	<0.156	<0.156	<0.156	0.244	<0.156	<0.156	<0.156	<0.156	<0.156	<0.156		
SB-13	SB-13-10.5-11.5	10.5 to 11.5	3/21/2002	8260B (EKI)	0.0223	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
	SB-13-20.5-21.5	20.5 to 21.5	3/21/2002	8260B (EKI)	0.0137	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134		
	SB-13-30.5-31.5	30.5 to 31.5	3/21/2002	8260B (EKI)	0.704	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325	0.292	<0.325	<0.325	<0.325	<0.325	<0.325	<0.325		
	SB-13-45.5-46.5	45.5 to 46.5	3/21/2002	8260B (EKI)	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343	<0.343		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs					Secondary VOCs										
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Building A Area																				
SB-14	SB-14-5.5-6.5	5.5 to 6.5	3/21/2002	8260B (EKI)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
	SB-14-20.5-21.5	20.5 to 21.5	3/21/2002	8260B (EKI)	<0.335	<0.335	<0.335	<0.335	<0.335	<0.335	<0.335	<0.335	0.363	<0.335	<0.335	<0.335	<0.335	<0.335		
SB-15	SB-15-10.5-11.5	10.5 to 11.5	3/21/2002	8260B (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
	SB-15-20.5-21.5	20.5 to 21.5	3/21/2002	8260B (EKI)	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127		
SB-16	SB-16-10.5-11.5	10.5 to 11.5	3/21/2002	8260B (EKI)	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128		
	SB-16-20.5-21.5	20.5 to 21.5	3/21/2002	8260B (EKI)	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
Oil Staging Area																				
#1	#1	8.5	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	0.0064	0.0008	NA	
#2	#2	8.5	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	0.0403	0.0048	NA	
#3	#3	8.5	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0001	NA	
#4	#4	8.5	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	0.0017	0.0103	NA	
#8	#8	3	7/19/1984	602 (EPI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0005	0.0039	0.0209	NA	
Boring B/2	2-10	10	10/30/1985	8240 (EPI)	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
	2-20	20	10/30/1985	8240 (EPI)	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
	2-30	30	10/30/1985	8240 (EPI)	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
	2-40	40	10/30/1985	8240 (EPI)	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
	2-50	50	10/30/1985	8240 (EPI)	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
	2-55	55	10/30/1985	8240 (EPI)	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
D1	SS-D1-8	8	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D1-8 (Dup)	8	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-D1-20	20	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D1-20(Dup)	20	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-D1-40	40	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
D2	SS-D2-8	8	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D2-8 (Dup)	8	6/5/1997	8240 (EKI)	0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-D2-18	18	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D2-18 (Dup)	18	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D2-18 (Dup)	18	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-D2-40	40	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D2-40 (Dup)	40	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		



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Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs					Secondary VOCs										
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Oil Staging Area																				
D3	SS-D3-8	8	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D3-8 (Dup)	8	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-D3-20	20	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D3-20 (Dup)	20	6/5/1997	8240 (EKI)	0.0035	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-D3-40	40	6/5/1997	8240 (DTSC)	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-D3-40 (Dup)	40	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
PMW-11	PMW-11-2.5-3.5	2.5 to 3.5	7/10/2002	8260B (EKI)	0.00164	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00311	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142		
	PMW-11-7-8	7 to 8	7/10/2002	8260B (EKI)	0.00188	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00284	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142		
PMW-22	PMW22-4.5-5	4.5 to 5	11/20/2002	8260 (EKI)	0.255	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00300	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150		
	PMW22-9.5-10	9.5 to 10	11/20/2002	8260 (EKI)	12.5	<0.359	<0.359	<0.359	<0.359	<0.359	<0.359	<0.718	<0.359	<0.359	<0.359	<0.359	<0.359	<0.359		
	PMW22-19.5-20	19.5 to 20	11/20/2002	8260 (EKI)	244	<1.64	<1.64	<1.64	<1.64	<1.64	<1.64	<3.28	<1.64	<1.64	<1.64	<1.64	<1.64	<1.64		
	PMW22-29.5-30	29.5 to 30	11/20/2002	8260 (EKI)	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	0.753	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300		
	PMW22-44.5-45	44.5 to 45	11/20/2002	8260 (EKI)	0.00143	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00250	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125		
PSVE-5	PSVE-5-3.5-4.5	3.5 to 4.5	7/9/2002	8260B (EKI)	0.0478	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00262	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131		
	PSVE-5-10.5-11.5	10.5 to 11.5	7/9/2002	8260B (EKI)	0.00615	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00287	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144		
PSVE-6	PSVE-6-2.5-3.5	2.5 to 3.5	7/8/2002	8260B (EKI)	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00294	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147		
	PSVE-6-9-10	9 to 10	7/8/2002	8260B (EKI)	0.00174	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00258	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129		
PSVE-7	PSVE-7-2.5-3.5	2.5 to 3.5	7/8/2002	8260B (EKI)	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00258	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129		
	PSVE-7-7.5-8.5	7.5 to 8.5	7/8/2002	8260B (EKI)	0.00999	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00301	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151		
SB-1	SB-01-10-10.5	10 to 10.5	4/11/2001	8260B (EKI)	0.027	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	SB-01-15-15.5	15 to 15.5	4/11/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
SB-2	SB-02-10-10.5	10 to 10.5	4/11/2001	8260B (EKI)	7.0	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	SB-02-15-15.5	15 to 15.5	4/11/2001	8260B (EKI)	8.2	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
SB-11	SB-11-20-21	20 to 21	3/19/2002	8260B (EKI)	35.6	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369	0.526	<0.369	<0.369	<0.369	<0.369	<0.369	<0.369		
	SB-11-30-31	30 to 31	3/19/2002	8260B (EKI)	17.3	<0.179	<0.179	<0.179	<0.179	<0.179	<0.179	0.276	<0.179	<0.179	<0.179	<0.179	<0.179	<0.179		
	SB-11-45.5-46.5	45.5 to 46.5	3/19/2002	8260B (EKI)	0.0338	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128		
SVMW-201	VMW-1-10-11	10 to 11	3/19/2002	8260B (EKI)	0.0129	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127		
	VMW-1-15-16	15 to 16	3/19/2002	8260B (EKI)	0.00582	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		
	VMW-1-20.5-21.5	20.5 to 21.5	3/19/2002	8260B (EKI)	0.0143	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144		
	VMW-1-30-31	30 to 31	3/19/2002	8260B (EKI)	0.0269	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132		
	VMW-1-45.5-46.5	45.5 to 46.5	3/19/2002	8260B (EKI)	0.00913	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012		
SVMW-214	PVMW-14-2.5-3.5	2.5 to 3.5	7/9/2002	8260B (EKI)	0.138	0.00513	0.00537	<0.00142	0.0049	<0.00142	<0.00142	<0.00283	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142		
	PVMW-14-7-8	7 to 8	7/9/2002	8260B (EKI)	0.135	0.00265	0.00247	<0.00131	0.00165	<0.00131	<0.00131	<0.00261	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131	<0.00131		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)														Other VOCs
					Primary VOCs						Secondary VOCs								
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Building L Area																			
L10	L10-0.25	0.25	7/25/2002	8260B (EKI)	0.0103	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.0148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	
L15	L15-0.5	0.5	7/24/2002	8260B (EKI)	0.00543	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.0126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	
L20	L20-0.5	0.5	7/24/2002	8260B (EKI)	4.45	<0.399	<0.399	<0.399	<0.399	<0.399	<0.399	<3.99	<0.399	<0.399	<0.399	<0.399	<0.399	<0.399	
L25	L25-0.25	0.25	7/24/2002	8260B (EKI)	0.0194	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.0132	<0.00132	<0.00132	<0.00132	0.0031	<0.00132	0.0347	
L27	L27-0.5	0.5	7/24/2002	8260B (EKI)	5.34	<0.416	0.419	<0.416	<0.416	<0.416	<0.416	<4.16	<0.416	<0.416	<0.416	<0.416	<0.416	<0.416	
L31	L31-0.5	0.5	7/24/2002	8260B (EKI)	0.00404	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.0148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	
L34	L34-0.5	0.5	7/25/2002	8260B (EKI)	0.0782	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	<0.0118	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	<0.00118	
PMW-12	PMW-12-2-3	2 to 3	6/24/2002	8260B (EKI)	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	
	PMW-12-8.5-9.5	8.5 to 9.5	6/24/2002	8260B (EKI)	0.00176	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	<0.00134	0.00185	<0.00134	<0.00134	
SB-3	SB-03-5-5.5	5 to 5.5	4/11/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
	SB-03-10-10.5	10 to 10.5	4/11/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
SB-4	SB-04-5-5.5	5 to 5.5	4/11/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
	SB-04-10-10.5	10 to 10.5	4/11/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	
SVMW-213	PVMW-13-2-3	2 to 3	7/16/2002	8260B (EKI)	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00284	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129	
	PVMW-13-8.5-9.5	8.5 to 9.5	7/16/2002	8260B (EKI)	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00269	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	
T-3	T-3U	0.5 to 1	3/19/2002	8260 (EKI)	10.2	<0.320	1.61	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	
T-8	T-8U	0.5 to 1	3/19/2002	8260 (EKI)	179	<1.61	3.91	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	<1.61	
Other Site Locations																			
1	1	2	6/21/1989	8020 (EPI)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.3	<0.3	<1	<1
2	2	2	6/21/1989	8020 (EPI)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.3	<0.3	<1	<1
3	3	2	6/21/1989	8020 (EPI)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.3	<0.3	<1	<1
4	4	2	6/21/1989	8020 (EPI)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.3	<0.3	<1	<1
#7	#7	NA	7/19/1984	602 (EPI)	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	<0.0002	<0.0004	<0.0001	NA	
A1	SS-A1-06	0.5	6/3/1997	DTSC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-A1-3	3	6/3/1997	DTSC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-A1-10	10	6/3/1997	DTSC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-A1-15	15	6/3/1997	DTSC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	SS-A1-40	40	6/3/1997	DTSC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method (collected by)	VOCs (mg/kg) (1)															Other VOCs
					Primary VOCs					Secondary VOCs										
					PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Other Site Locations																				
B1	SS-B1-8	8	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B1-8 (Dup)	8	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B1-20	20	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B1-20 (Dup)	20	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	SS-B1-20 (Dup)	20	6/5/1997	8240 (EKI)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
	SS-B1-40	40	6/5/1997	8240 (DTSC)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
PMW-9	PMW-9-2-3	2 to 3	7/10/2002	8260B (EKI)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00252	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126		
	PMW-9-7-8	7 to 8	7/10/2002	8260B (EKI)	0.00585	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00256	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128		
PMW-10	PMW-10-2.5-3.5	2.5 to 3.5	7/15/2002	8260B (EKI)	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0045	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		
	PMW-10-7-8	7 to 8	7/15/2002	8260B (EKI)	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00277	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139		
PMW-13	PMW-13-2-3	2 to 3	7/11/2002	8260B (EKI)	0.021	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00263	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132		
	PMW-13-7.5-8.5	7.5 to 8.5	7/11/2002	8260B (EKI)	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00309	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155		
PMW-15	PMW-15-2-3	2 to 3	7/15/2002	8260B (EKI)	<0.00163	<0.00163	<0.00163	<0.00163	<0.00163	<0.00163	<0.00163	<0.00358	<0.00163	<0.00163	<0.00163	<0.00163	<0.00163	<0.00163		
	PMW-15-7-8	7 to 8	7/15/2002	8260B (EKI)	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00263	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132		
SB-5	SB-05-5-5.5	5 to 5.5	4/11/2001	8260B (EKI)	0.0095	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	SB-05-10-10.5	10 to 10.5	4/11/2001	8260B (EKI)	0.0048	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
SB-10	SB-10-9.5-10	9.5 to 10	4/10/2001	8260B (EKI)	0.076	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
	SB-10-20-20.5	20 to 20.5	4/10/2001	8260B (EKI)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
SVMW-203	PVMW-3-2-3	2 to 3	7/16/2002	8260B (EKI)	0.0018	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00289	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145		
	PVMW-3-7-8	7 to 8	7/16/2002	8260B (EKI)	0.00353	<0.00145	0.00146	<0.00145	<0.00145	<0.00145	<0.00145	<0.00289	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145		
SVMW-204	PVMW-4-2.5-3.5	2.5 to 3.5	7/17/2002	8260B (EKI)	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00347	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124		
	PVMW-4-7-8	7 to 8	7/17/2002	8260B (EKI)	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.00455	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013		
SVMW-206	PVMW-6-2.5-3.5	2.5 to 3.5	7/16/2002	8260B (EKI)	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00269	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135		
	PVMW-6-7-8	7 to 8	7/16/2002	8260B (EKI)	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00295	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148		
SVMW-212	PVMW-12-1-2	1 to 2	7/2/2002	8260B (EKI)	0.00169	<0.00143	<0.00143	<0.00143	<0.00143	<0.00143	<0.00143	<0.00286	<0.00143	<0.00143	<0.00143	<0.00143	<0.00143	<0.00143		
	PVMW-12-7.5-8.5	7.5 to 8.5	7/2/2002	8260B (EKI)	0.00751	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00265	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133		



**Table 8**  
**Summary of VOC Analytical Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

bgs	below ground or floor surface
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,1-DCE	1,1-dichloroethene
cis 1,2-DCE	cis 1,2-dichloroethene
Dup	Duplicate or sequential sample
DTSC	California Department of Toxic Substances Control
EKI	Erler & Kalinowski, Inc.
EPI	EnviroPro, Inc.
mg/kg	milligrams per kilogram
NA	Sample was not tested for this analyte, or the result is not available.
ND	Analyte was not detected above the analytical method reporting limit. Reporting limit unknown.
PCE	Tetrachloroethene
1,1,1-TCA	1,1,1-trichloroethane
TCE	Trichloroethene
VOC	Volatile organic compound

**Notes**

- (1) Samples collected since March 2002 were analyzed for approximately 60 target VOCs, including 1,4,-dioxane, 1,2,3-trichloropropane, and methyl tert-butyl ether. Analyses not shown were not detected above laboratory reporting limits.
- (2) Meta- and para-xylenes were detected at a concentration of 0.00128 mg/kg in this sample, and ortho-xylenes were not detected above the method reporting limit of 0.00121 mg/kg.
- (3) Meta- and para-xylenes were detected at a concentration of 0.00149 mg/kg in this sample, and ortho-xylenes were not detected above the method reporting limit of 0.00132 mg/kg.
- (4) Meta- and para-xylenes were detected at a concentration of 0.00149 mg/kg in this sample, and ortho-xylenes were not detected above the method reporting limit of 0.00121 mg/kg.
- (5) This sample was analyzed outside the maximum allowable holding time (14 days).



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Central Building P Area							
MS1	MS1-5-6	5 to 6	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	MS1-15-15.5	15 to 15.5	12/5/2002	EPA 8015M (1)	<1.00	22.7 (2)	NA
PMW-25	PMW25-1-1.5	1 to 1.5	11/25/2002	EPA 8015M (1)	NA	<10.0	NA
	PMW25-10-10.5	10 to 10.5	11/25/2002	EPA 8015M (1)	NA	<10.0	NA
PMW-26	PMW26-5-5.5	5 to 5.5	12/3/2002	EPA 8015M (1)	<1.00	<10.0	NA
	PMW26-10-11	10 to 11	12/3/2002	EPA 8015M (1)	<1.00	<10.0	NA
	PMW26-25-25.5	25 to 25.5	12/3/2002	EPA 8015M (1)	<1.00	33.6 (2)	NA
	PMW26-35-35.5	35 to 35.5	12/3/2002	EPA 8015M (1)	<1.00	29.5 (2)	NA
PSVE-1	PSVE-1-1-2	1 to 2	6/26/2002	EPA 8015M (1)	<1	11.5 (3)	NA
	PSVE-1-9.5-10	9.5 to 10	6/26/2002	EPA 8015M (1)	<1	23.1 (3)	NA
PSVE-2	PSVE-2-1.5-2.5	1.5 to 2.5	6/25/2002	EPA 8015M (1)	1.70	280 (3)	NA
	PSVE-2-8-8.5	8 to 8.5	6/25/2002	EPA 8015M (1)	<1	60.6 (3)	NA
	PSVE-2-55.5-56.5	55.5 to 56.5	6/25/2002	EPA 8015M (1)	<1	<10	NA
PSVE-3	PSVE-3-2.5-3.5	2.5 to 3.5	6/26/2002	EPA 8015M (1)	<1	<10	NA
	PSVE-3-7.5-8.5	7.5 to 8.5	6/26/2002	EPA 8015M (1)	<1	<10	NA
	PSVE-3-41.5-42	41.5 to 42	6/26/2002	EPA 8015M (1)	<1	<10	NA
PSVE-4	PSVE-4-1.5-2.5	1.5 to 2.5	6/25/2002	EPA 8015M (1)	<1	<10	NA
	PSVE-4-7.5-8.5	7.5 to 8.5	6/25/2002	EPA 8015M (1)	<1	<10	NA
SB-6	SB-06-4.5-5	4.5 to 5	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	SB-06-9.5-10	9.5 to 10	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
SB-7	SB-07-4.5-5	4.5 to 5	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	SB-07-9.5-10	9.5 to 10	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
SB-8	SB-08-9.5-10	9.5 to 10	4/10/2001	8015B/8015M	0.11 (4)	100; 340 (5)	NA
	SB-08-14.5-15	14.5 to 15	4/10/2001	8015B/8015M	<0.1 (4)	78.0; 240 (5)	NA
SB-9	SB-09-9-9.5	9 to 9.5	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	SB-09-19.5-20	19.5 to 20	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Central Building P Area							
SVMW-202	VMW-2-20.5-21.5	20.5 to 21.5	3/20/2002	EPA 8015M (1)	<1	<10	NA
	VMW-2-30.5-31.5	30.5 to 31.5	3/20/2002	EPA 8015M (1)	<1	<10	NA
	VMW-2-45.5-46.5	45.5 to 46.5	3/20/2002	EPA 8015M (1)	<1	<10	NA
SVMW-205	PVMW-5-1-2	1 to 2	7/17/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-5-7-8	7 to 8	7/17/2002	EPA 8015M (1)	<1	<10	NA
SVMW-207	PVMW-7-3-4	3 to 4	6/28/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-7-7.5-8.5	7.5 to 8.5	6/28/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-7-50.5-51.5	50.5 to 51.5	6/28/2002	EPA 8015M (1)	<1	<10	NA
SVMW-208	PVMW-8-1-2	1 to 2	6/28/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-8-7.5-8.5	7.5 to 8.5	6/28/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-8-26-27	26 to 27	6/28/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-8-50.5-51.5	50.5 to 51.5	6/28/2002	EPA 8015M (1)	<1	<10	NA
SVMW-209	PVMW-9-1.5-2.5	1.5 to 2.5	6/25/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-9-13-14	13 to 14	6/27/2002	EPA 8015M (1)	<1	<10	NA
SVMW-210	PVMW-10-1-2	1 to 2	6/27/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-10-7.5-8.5	7.5 to 8.5	6/27/2002	EPA 8015M (1)	<1	<10	NA
SVMW-211	PVMW-11-3-4	3 to 4	7/1/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-11-10.5-11.5	10.5 to 11.5	7/1/2002	EPA 8015M (1)	<1	<10	NA
W1	W1-1-1.5	1 to 1.5	11/26/2002	EPA 8015M (1)	<1.00	21.5 (2)	NA
	W1-9.5-10	9.5 to 10	11/26/2002	EPA 8015M (1)	<1.00	15.6 (2)	NA
	W1-25-25.5	25 to 25.5	11/26/2002	EPA 8015M (1)	<1.00	15.1 (2)	NA
W2	W2-1-1.5	1 to 1.5	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
	W2-5-6	5 to 6	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
	W2-10-11	10 to 11	12/2/2002	EPA 8015M (1)	<1.00	20.7 (2)	NA
W3	W3-1-2	1 to 2	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
	W3-10.5-11.5	10.5 to 11.5	12/2/2002	EPA 8015M (1)	<1.00	<10	NA



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**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Central Building P Area							
W4	W4-1-2	1 to 2	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
	W4-5-6	5 to 6	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
	W4-10-11	10 to 11	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
W5	W5-1.5-2.5	1.5 to 2.5	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
	W5-10-11	10 to 11	12/2/2002	EPA 8015M (1)	<1.00	<10	NA
W6	W6-2-2.5	2 to 2.5	12/3/2002	EPA 8015M (1)	<1.00	36 (2)	NA
	W6-5-6	5 to 6	12/3/2002	EPA 8015M (1)	<1.00	30.9 (2)	NA
W7	W7-5-5.5	5 to 5.5	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W7-15-15.5	15 to 15.5	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
W8	W8-7.5-8.5	7.5 to 8.5	12/3/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W8-15-16	15 to 16	12/3/2002	EPA 8015M (1)	<1.00	12.8 (6)	NA
	W8-25-26	25 to 26	12/3/2002	EPA 8015M (1)	<1.00	10.8 (6)	NA
W9	W9-1.5-2.5	1.5 to 2.5	12/4/2002	EPA 8015M (1)	<1.00	60.7 (7)	NA
	W9-10-11	10 to 11	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W9-25-26	25 to 26	12/4/2002	EPA 8015M (1)	<1.00	12.4 (8)	NA
W10	W10-2.5-3	2.5 to 3	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W10-11.5-12	11.5 to 12	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W10-26.5-27	26.5 to 27	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
W11	W11-10-11	10 to 11	12/6/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W11-20-21	20 to 21	12/6/2002	EPA 8015M (1)	<1.00	<10.0	NA
W12	W12-3-4	3 to 4	12/4/2002	EPA 8015M (1)	<1.00	73.8 (2)	NA
	W12-12-13	12 to 13	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
W13	W13-5-5.5	5 to 5.5	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W13-15-15.5	15 to 15.5	12/4/2002	EPA 8015M (1)	<1.00	110 (2)	NA
W14	W14-1-2	1 to 2	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W14-10-11	10 to 11	12/4/2002	EPA 8015M (1)	<1.00	<10.0	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Central Building P Area							
W15	W15-7.5-8.5	7.5 to 8.5	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W15-12.5-13.5	12.5 to 13.5	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W15-28-29	28 to 29	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
W16	W16-8-9	8 to 9	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W16-13-14	13 to 14	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W16-28-29	28 to 29	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
W17	W17-10.5-11.5	10.5 to 11.5	12/2/2002	EPA 8015M (1)	<1.00	18.3 (2)	NA
	W17-22-23	22 to 23	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W17-32-33	32 to 33	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
W18	W18-6.5-7.5	6.5 to 7.5	12/5/2002	EPA 8015M (1)	<1.00	189 (2)	NA
	W18-12-12.5	12 to 12.5	12/5/2002	EPA 8015M (1)	<1.00	1,030 (2)	NA
W19	W19-5-6	5 to 6	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W19-10-10.5	10 to 10.5	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
W20	W20-5-6	5 to 6	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W20-9-9.5	9 to 9.5	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W20-19-20	19 to 20	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
W21	W21-4-5	4 to 5	12/2/2002	EPA 8015M (1)	<1	23.8 (8)	NA
	W21-9.5-10	9.5 to 10	12/2/2002	EPA 8015M (1)	<1	28.3 (9)	NA
	W21-19-20	19 to 20	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
W22	W22-3.5-4	3.5 to 4	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W22-6.5-7	6.5 to 7	12/5/2002	EPA 8015M (1)	NA	<10.0	NA
	W22-11.5-12.5	11.5 to 12.5	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W22-26.5-27.5	26.5 to 27.5	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
W23	W23-4-5	4 to 5	12/2/2002	EPA 8015M (1)	<1.00	40.6 (9)	NA
	W23-18-19	18 to 19	12/2/2002	EPA 8015M (1)	<1.00	<10.0	NA
W24	W24-6.5-7.5	6.5 to 7.5	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W24-11.5-12	11.5 to 12	12/5/2002	EPA 8015M (1)	<1.00	<10.0	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

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Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Central Building P Area							
W25	W25-1.5-2.5	1.5 to 2.5	12/6/2002	EPA 8015M (1)	<1.00	71,100 (2)	NA
	W25-10-11	10 to 11	12/6/2002	EPA 8015M (1)	<1.00	19,500 (2)	NA
	W25-20-21	20 to 21	12/6/2002	EPA 8015M (1)	<1.00	9,940 (2)	NA
W26	W26-1.5-2.5	1.5 to 2.5	12/5/2002	EPA 8015M (1)	<1.00	9,920 (2)	NA
	W26-10-11	10 to 11	12/5/2002	EPA 8015M (1)	<1.00	18,200 (2)	NA
	W26-25-26	25 to 26	12/5/2002	EPA 8015M (1)	1.06	8,190 (2)	NA
	W26-35.5-36.5	35.5 to 36.5	12/5/2002	EPA 8015M (1)	<1.00	671 (2)	NA
W27	W27-3-4	3 to 4	12/3/2002	EPA 8015M (1)	<1.00	<10.0	NA
	W27-7-7.5	7 to 7.5	12/3/2002	EPA 8015M (1)	<1.00	<10.0	NA
Building A Area							
#5	#5	10	7/19/1984	413.2 (10)	NA	NA	11.0
	#5 (Dup)	10	7/19/1984	413.2 (10)	NA	NA	ND
	#5	10	7/19/1984	418.1 (11)	NA	NA	8.00
	#5 (Dup)	10	7/19/1984	418.1 (11)	NA	NA	ND
#6	#6	10	7/19/1984	413.2 (10)	NA	NA	6,561
	#6 (Dup)	10	7/19/1984	413.2 (10)	NA	NA	6,100
	#6	10	7/19/1984	418.1 (11)	NA	NA	6,566
	#6 (Dup)	10	7/19/1984	418.1 (11)	NA	NA	1,600
A1	A1-5-5.5	5 to 5.5	8/27/2002	EPA 8015M (1)	<1	20,700 (2)	NA
	A1-10-10.5	10 to 10.5	8/27/2002	EPA 8015M (1)	<1	17,000 (2)	NA
	A1-15-15.5	15 to 15.5	8/27/2002	EPA 8015M (1)	<1	15,100 (2)	NA
	A1-25-25.5	25 to 25.5	8/27/2002	EPA 8015M (1)	<1	9,040 (2)	NA
	A1-45-45.5	45 to 45.5	8/27/2002	EPA 8015M (1)	1.86	15,300 (2)	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

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Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Building A Area							
A2	A2-1-1.5	1 to 1.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A2-4.5-5	4.5 to 5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A2-10-10.5	10 to 10.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A2-15-15.5	15 to 15.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A2-24.5-25	24.5 to 25	8/27/2002	EPA 8015M (1)	<1	77.7 (2)	NA
	A2-45-45.5	45 to 45.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
A3	A3-1-1.5	1 to 1.5	8/27/2002	EPA 8015M (1)	<1	14,600 (2)	NA
	A3-5-5.5	5 to 5.5	8/27/2002	EPA 8015M (1)	<1	9,560 (12)	NA
	A3-10-10.5	10 to 10.5	8/27/2002	EPA 8015M (1)	1.07	14,000 (2)	NA
	A3-15-15.5	15 to 15.5	8/27/2002	EPA 8015M (1)	<1	25,900 (2)	NA
	A3-25-25.5	25 to 25.5	8/27/2002	EPA 8015M (1)	<1	24,100 (2)	NA
	A3-45-45.5	45 to 45.5	8/27/2002	EPA 8015M (1)	<1	9,050 (2)	NA
A4	A4-4.5-5	4.5 to 5	8/27/2002	EPA 8015M (1)	<1	634 (12)	NA
	A4-10-10.5	10 to 10.5	8/27/2002	EPA 8015M (1)	<1	824 (12)	NA
	A4-15-15.5	15 to 15.5	8/27/2002	EPA 8015M (1)	<1	54.7 (12)	NA
	A4-25-25.5	25 to 25.5	8/27/2002	EPA 8015M (1)	1.47	13,000	NA
	A4-45-45.5	45 to 45.5	8/27/2002	EPA 8015M (1)	<1	1,530 (2)	NA
A5	A5-1-1.5	1 to 1.5	8/26/2002	EPA 8015M (1)	<1	8,620 (2)	NA
	A5-5-5.5	5 to 5.5	8/26/2002	EPA 8015M (1)	<1	487 (2)	NA
	A5-9.5-10	9.5 to 10	8/26/2002	EPA 8015M (1)	<1	85.6 (2)	NA
	A5-25.5-26	25.5 to 26	8/26/2002	EPA 8015M (1)	<1	<10	NA
A6	A6-5-5.5	5 to 5.5	8/26/2002	EPA 8015M (1)	<1	403 (2)	NA
	A6-10-10.5	10 to 10.5	8/26/2002	EPA 8015M (1)	<1	160 (2)	NA
	A6-15-15.5	15 to 15.5	8/26/2002	EPA 8015M (1)	<1	286 (2)	NA
	A6-25-25.5	25 to 25.5	8/26/2002	EPA 8015M (1)	<1	<10	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Building A Area							
A7	A7-1-1.5	1 to 1.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A7-5-5.5	5 to 5.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A7-9.5-10	9.5 to 10	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A7-14.5-15	14.5 to 15	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A7-25-25.5	25 to 25.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
A8	A8-4.5-5	4.5 to 5	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A8-10-10.5	10 to 10.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A8-14.5-15	14.5 to 15	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A8-25-25.5	25 to 25.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
A9	A9-5-5.5	5 to 5.5	8/26/2002	EPA 8015M (1)	<1	61.3 (2)	NA
	A9-10-10.5	10 to 10.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A9-15-15.5	15 to 15.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
	A9-25-25.5	25 to 25.5	8/26/2002	EPA 8015M (1)	<1	<10	NA
A10	A10-1-1.5	1 to 1.5	8/28/2002	EPA 8015M (1)	1.91	7,590 (2)	NA
	A10-5.5-6	5.5 to 6	8/28/2002	EPA 8015M (1)	1.35	1,230 (2)	NA
	A10-10-10.5	10 to 10.5	8/28/2002	EPA 8015M (1)	1.44	10,700 (2)	NA
	A10-15-15.5	15 to 15.5	8/28/2002	EPA 8015M (1)	1.91	7,340 (2)	NA
	A10-24.5-25	24.5 to 25	8/28/2002	EPA 8015M (1)	<1	140 (2)	NA
	A10-45-45.5	45 to 45.5	8/28/2002	EPA 8015M (1)	<1	<10	NA
A11	A11-1-1.5	1 to 1.5	8/26/2002	EPA 8015M (1)	3.53	24,300 (2)	NA
	A11-5-5.5	5 to 5.5	8/26/2002	EPA 8015M (1)	3.72	26,900 (2)	NA
	A11-10-10.5	10 to 10.5	8/26/2002	EPA 8015M (1)	<1	11,200 (2)	NA
	A11-15-15.5	15 to 15.5	8/26/2002	EPA 8015M (1)	<1	12,900 (2)	NA
	A11-24.5-25	24.5 to 25	8/26/2002	EPA 8015M (1)	1.15	10,300 (2)	NA
	A11-44.5-45	44.5 to 45	8/26/2002	EPA 8015M (1)	1.08	16,300 (2)	NA



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Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Building A Area							
A12	A12-1-1.5	1 to 1.5	8/28/2002	EPA 8015M (1)	<1	4,060 (2)	NA
	A12-5-5.5	5 to 5.5	8/28/2002	EPA 8015M (1)	<1	1,960 (2)	NA
	A12-10-10.5	10 to 10.5	8/28/2002	EPA 8015M (1)	<1	30.3 (2)	NA
	A12-15-15.5	15 to 15.5	8/28/2002	EPA 8015M (1)	<1	34.7 (2)	NA
	A12-25-25.5	25 to 25.5	8/28/2002	EPA 8015M (1)	<1	<10	NA
	A12-45-45.5	45 to 45.5	8/28/2002	EPA 8015M (1)	<1	<10	NA
A13	A13-4.5-5	4.5 to 5	8/28/2002	EPA 8015M (1)	<1	167 (2)	NA
A14	A14-5-5.5	5 to 5.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A14-10-10.5	10 to 10.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A14-15-15.5	15 to 15.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
	A14-30-30.5	30 to 30.5	8/27/2002	EPA 8015M (1)	<1	<10	NA
Boring C/MW-1	C-5	5	2/4/1986	418.1/413.2 (13)	NA	400	NA
	C-10	10	2/4/1986	418.1/413.2 (13)	NA	6,500	NA
	C-15	15	2/4/1986	418.1/413.2 (13)	NA	440	NA
	C-20	20	2/4/1986	418.1/413.2 (13)	NA	9,300	NA
	C-30	30	2/4/1986	418.1/413.2 (13)	NA	8,400	NA
	C-40	40	2/4/1986	418.1/413.2 (13)	NA	2,200	NA
	C-40 (14)	40	2/26/1986	418.1/413.2 (13)	NA	3,300	3,300
	C-50	50	2/26/1986	418.1/413.2 (13)	NA	<100	28.0
	C-60	60	2/26/1986	418.1/413.2 (13)	NA	<100	16.0
MW-4	MW-4-16	16	12/29/1998	8015B/8015M	<0.1 (4)	180; <100 (5)	NA
	MW-4-21	21	12/29/1998	8015B/8015M	<0.1 (4)	110; <100 (5)	NA
	MW-4-41	41	12/29/1998	8015B/8015M	<0.1 (4)	74.0; <100 (5)	NA
	MW-4-46	46	12/29/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA



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**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Building A Area							
MW-5	MW-5-6	6	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-5-16	16	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-5-21	21	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-5-31	31	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
MW-6	MW-6-11	11	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-6-21	21	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-6-31	31	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-6-36	36	12/22/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
MW-7	MW-7-10.5	10.5	12/21/1998	8015B/8015M	<0.1 (4)	73.0; <100 (5)	NA
	MW-7-21	21	12/21/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-7-26	26	12/21/1998	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-7-36	36	12/21/1998	8015B/8015M	<0.1 (4)	52; <100 (5)	NA
MW-8	MW-8-11	11	5/23/2000	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-8-21	21	5/23/2000	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-8-31	31	5/23/2000	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	MW-8-41	41	5/23/2000	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
PMW-14	PMW14-11.5-12	11.5 to 12	9/26/2002	EPA 8015M (1)	<1	<10	NA
	PMW14-24.5-25	24.5 to 25	9/26/2002	EPA 8015M (1)	<1	7,200 (15)	NA
	PMW14-39.5-40	39.5 to 40	9/26/2002	EPA 8015M (1)	<1	4,200 (15)	NA
	PMW14-60-60.5	60 to 60.5	9/26/2002	EPA 8015M (1)	<1	<10	NA
PMW-16	PMW16-1-1.5	1 to 1.5	9/25/2002	EPA 8015M (1)	<1	<10	NA
	PMW16-11-11.5	11 to 11.5	9/25/2002	EPA 8015M (1)	<1	<10	NA
	PMW16-24.5-25	24.5 to 25	9/25/2002	EPA 8015M (1)	<1	5,110 (16)	NA
	PMW16-45-45.5	45 to 45.5	9/25/2002	EPA 8015M (1)	<1	<10	NA



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Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Building A Area							
PMW-17	PMW17-4.5-5	4.5 to 5	9/30/2002	EPA 8015M (1)	<1	287 (2)	NA
	PMW17-9.5-10	9.5 to 10	9/30/2002	EPA 8015M (1)	<1	136 (2)	NA
	PMW17-24.5-25	24.5 to 25	9/30/2002	EPA 8015M (1)	<1	<10	NA
	PMW17-47.5-48	47.5 to 48	9/30/2002	EPA 8015M (1)	<1	846 (2)	NA
PMW-18	PMW18-4-4.5	4 to 4.5	9/24/2002	EPA 8015M (1)	<1	8,450 (3)	NA
	PMW18-20.5-21	20.5 to 21	9/24/2002	EPA 8015M (1)	<1	17,500 (3)	NA
	PMW18-29.5-30	29.5 to 30	9/24/2002	EPA 8015M (1)	1.54	20,100 (16)	NA
	PMW18-44.5-45	44.5 to 45	9/24/2002	EPA 8015M (1)	<1	975 (16)	NA
SB-12	SB-12-5.5-6.5	5.5 to 6.5	3/20/2002	EPA 8015M (1)	<1	7,310 (2)	NA
	SB-12-10.5-11.5	10.5 to 11.5	3/20/2002	EPA 8015M (1)	3.37	32,400 (2)	NA
	SB-12-20-21	20 to 21	3/20/2002	EPA 8015M (1)	<1	415 (2)	NA
	SB-12-25.5-26.5	25.5 to 26.5	3/20/2002	EPA 8015M (1)	<1	353 (2)	NA
SB-13	SB-13-10.5-11.5	10.5 to 11.5	3/21/2002	EPA 8015M (1)	<1	24,300 (2)	NA
	SB-13-20.5-21.5	20.5 to 21.5	3/21/2002	EPA 8015M (1)	<1	4,900 (2)	NA
	SB-13-30.5-31.5	30.5 to 31.5	3/21/2002	EPA 8015M (1)	<1	29,100 (2)	NA
	SB-13-45.5-46.5	45.5 to 46.5	3/21/2002	EPA 8015M (1)	<1	12,600 (2)	NA
SB-14	SB-14-5.5-6.5	5.5 to 6.5	3/21/2002	EPA 8015M (1)	<1	3,040 (2)	NA
	SB-14-20.5-21.5	20.5 to 21.5	3/21/2002	EPA 8015M (1)	<1	8,700 (2)	NA
SB-15	SB-15-10.5-11.5	10.5 to 11.5	3/21/2002	EPA 8015M (1)	<1	17.6 (2)	NA
	SB-15-20.5-21.5	20.5 to 21.5	3/21/2002	EPA 8015M (1)	<1	430 (2)	NA
SB-16	SB-16-10.5-11.5	10.5 to 11.5	3/21/2002	EPA 8015M (1)	<1	<10	NA
	SB-16-20.5-21.5	20.5 to 21.5	3/21/2002	EPA 8015M (1)	<1	29.9 (2)	NA



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Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Oil Staging Area							
#1	#1	8.5	7/19/1984	413.2 (10)	NA	NA	<1
	#1 (Dup)	8.5	7/19/1984	413.2 (10)	NA	NA	110
	#1	8.5	7/19/1984	418.1 (11)	NA	NA	<1
	#1 (Dup)	8.5	7/19/1984	418.1 (11)	NA	NA	ND
#2	#2	8.5	7/19/1984	413.2 (10)	NA	NA	2,214
	#2 (Dup)	8.5	7/19/1984	413.2 (10)	NA	NA	1,000
	#2	8.5	7/19/1984	418.1 (11)	NA	NA	2,178
	#2 (Dup)	8.5	7/19/1984	418.1 (11)	NA	NA	150
#3	#3	8.5	7/19/1984	413.2 (10)	NA	NA	862
	#3 (Dup)	8.5	7/19/1984	413.2 (10)	NA	NA	320
	#3	8.5	7/19/1984	418.1 (11)	NA	NA	862
	#3 (Dup)	8.5	7/19/1984	418.1 (11)	NA	NA	500
#4	#4	8.5	7/19/1984	413.2 (10)	NA	NA	8,524
	#4 (Dup)	8.5	7/19/1984	413.2 (10)	NA	NA	4,000
	#4	8.5	7/19/1984	418.1 (11)	NA	NA	8,463
	#4 (Dup)	8.5	7/19/1984	418.1 (11)	NA	NA	1,100
#8	#8	3	7/19/1984	413.2 (10)	NA	NA	18,482
	#8 (Dup)	3	7/19/1984	413.2 (10)	NA	NA	1,800
	#8	3	7/19/1984	418.1 (11)	NA	NA	19,308
	#8 (Dup)	3	7/19/1984	418.1 (11)	NA	NA	ND
Boring B/2	2-10	10	10/30/1985	413.1 /418.2	NA	NA	23.0
	2-20	20	10/30/1985	413.1 /418.2	NA	NA	28.0
	2-30	30	10/30/1985	413.1 /418.2	NA	NA	30.0
	2-40	40	10/30/1985	413.1 /418.2	NA	NA	28.0
	2-50	50	10/30/1985	413.1 /418.2	NA	NA	22.0
	2-55	55	10/30/1985	413.1 /418.2	NA	NA	24.0



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					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Oil Staging Area							
PMW-11	PMW-11-2.5-3.5	2.5 to 3.5	7/10/2002	EPA 8015M (1)	<1	<10	NA
	PMW-11-7-8	7 to 8	7/10/2002	EPA 8015M (1)	<1	<10	NA
PMW-22	PMW22-9.5-10	9.5 to 10	11/20/2002	EPA 8015M (1)	<1.00	550 (2)	NA
	PMW22-19.5-20	19.5 to 20	11/20/2002	EPA 8015M (1)	12.8	2,820 (17)	NA
	PMW22-29.5-30	29.5 to 30	11/20/2002	EPA 8015M (1)	1.71	<10.0	NA
PSVE-5	PSVE-5-3.5-4.5	3.5 to 4.5	7/9/2002	EPA 8015M (1)	<1	34.2 (3)	NA
	PSVE-5-10.5-11.5	10.5 to 11.5	7/9/2002	EPA 8015M (1)	<1	<10	NA
PSVE-6	PSVE-6-2.5-3.5	2.5 to 3.5	7/8/2002	EPA 8015M (1)	<1	<10	NA
	PSVE-6-9-10	9 to 10	7/8/2002	EPA 8015M (1)	<1	<10	NA
PSVE-7	PSVE-7-2.5-3.5	2.5 to 3.5	7/8/2002	EPA 8015M (1)	<1	<10	NA
	PSVE-7-7.5-8.5	7.5 to 8.5	7/8/2002	EPA 8015M (1)	<1	<10	NA
SB-1	SB-01-9.5-10	9.5 to 10	4/11/2001	8015B/8015M	0.260 (4)	18; 180 (5)	NA
	SB-01-14.5-15	14.5 to 15	4/11/2001	8015B/8015M	0.110 (4)	<10; <100 (5)	NA
SB-2	SB-02-9.5-10	9.5 to 10	4/11/2001	8015B/8015M	1.30 (4)	32.0; 360 (5)	NA
	SB-02-14.5-15	14.5 to 15	4/11/2001	8015B/8015M	3.20 (4)	110; 740 (5)	NA
SB-11	SB-11-20-21	20 to 21	3/19/2002	EPA 8015M (1)	6.87	763 (2)	NA
	SB-11-30-31	30 to 31	3/19/2002	EPA 8015M (1)	2.68	150 (2)	NA
	SB-11-45.5-46.5	45.5 to 46.5	3/19/2002	EPA 8015M (1)	<1	<10	NA
SVMW-201	VMW-1-5-6	5 to 6	3/19/2002	EPA 8015M (1)	1.07	<10	NA
	VMW-1-10-11	10 to 11	3/19/2002	EPA 8015M (1)	<1	<10	NA
	VMW-1-20.5-21.5	20.5 to 21.5	3/19/2002	EPA 8015M (1)	<1	<10	NA
	VMW-1-30-31	30 to 31	3/19/2002	EPA 8015M (1)	<1	<10	NA
	VMW-1-45.5-46.5	45.5 to 46.5	3/19/2002	EPA 8015M (1)	<1	<10	NA
SVMW-214	PVMW-14-2.5-3.5	2.5 to 3.5	7/9/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-14-7-8	7 to 8	7/9/2002	EPA 8015M (1)	<1	<10	NA



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					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Building L Area							
L11	L11-0.5-1	0.5 to 1	7/25/2002	EPA 8015M (1)	NA	421 (2)	NA
L14	L14-0.5-1	0.5 to 1	7/25/2002	EPA 8015M (1)	NA	172 (2)	NA
L15	L15-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	137 (2)	NA
L20	L20-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	306 (2)	NA
L21	L21-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	289 (2)	NA
L26	L26-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	97.2 (2)	NA
L27	L27-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	227 (2)	NA
L30	L30-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	664 (2)	NA
L31	L31-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	<10	NA
L32	L32-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	2,290 (13)	NA
L33	L33-0.5-1	0.5 to 1	7/24/2002	EPA 8015M (1)	NA	<10	NA
PMW-12	PMW-12-2-3	2 to 3	6/24/2002	EPA 8015M (1)	<1	<10	NA
	PMW-12-8.5-9.5	8.5 to 9.5	6/24/2002	EPA 8015M (1)	<1	286 (3)	NA
SB-3	SB-03-4.5-5	4.5 to 5	4/11/2001	8015B/8015M	0.110 (4)	2,100; 5,100 (5)	NA
	SB-03-9.5-10	9.5 to 10	4/11/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
SB-4	SB-04-4.5-5	4.5 to 5	4/11/2001	8015B/8015M	0.140 (4)	110; 290 (5)	NA
	SB-04-9.5-10	9.5 to 10	4/11/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
SVMW-213	PVMW-13-2-3	2 to 3	7/16/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-13-8.5-9.5	8.5 to 9.5	7/16/2002	EPA 8015M (1)	<1	<10	NA
T-3	T-3U	0.5 to 1	3/19/2002	8015M (1)	<1.0	614 (2)	NA
	T-3L	1.5 to 2	3/19/2002	8015M (1)	NA	<10	NA
T-8	T-8U	0.5 to 1	3/19/2002	8015M (1)	160	14,000 (18)	NA
	T-8L	1.5 to 2	3/19/2002	8015M (1)	NA	<10	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Other Site Locations							
1	1	2	6/21/1989	418.1	NA	NA	12.0
2	2	2	6/21/1989	418.1	NA	NA	<10
3	3	2	6/21/1989	418.1	NA	NA	12.0
4	4	2	6/21/1989	418.1	NA	NA	12.0
#7	#7	NA	7/19/1984	413.2 (10)	NA	NA	525
	#7	NA	7/19/1984	418.1 (11)	NA	NA	502
Boring E	E-5	5	1/29/1986	418.1	NA	NA	75.0
	E-10	10	1/29/1986	418.1	NA	NA	330
	E-15	15	1/29/1986	418.1	NA	NA	100
	E-20	20	1/29/1986	418.1	NA	NA	80.0
	E-30	30	1/29/1986	418.1	NA	NA	60.0
	E-40	40	1/29/1986	418.1	NA	NA	120
PMW-9	PMW-9-2-3	2 to 3	7/10/2002	EPA 8015M (1)	<1	<10	NA
	PMW-9-7-8	7 to 8	7/10/2002	EPA 8015M (1)	<1	<10	NA
PMW-10	PMW-10-2.5-3.5	2.5 to 3.5	7/15/2002	EPA 8015M (1)	<1	<10	NA
	PMW-10-7-8	7 to 8	7/15/2002	EPA 8015M (1)	<1	<10	NA
PMW-13	PMW-13-2-3	2 to 3	7/11/2002	EPA 8015M (1)	<1	<10	NA
	PMW-13-7.5-8.5	7.5 to 8.5	7/11/2002	EPA 8015M (1)	<1	<10	NA
PMW-15	PMW-15-2-3	2 to 3	7/15/2002	EPA 8015M (1)	<1	<10	NA
	PMW-15-7-8	7 to 8	7/15/2002	EPA 8015M (1)	<1	11.9	NA
SB-5	SB-05-4.5-5	4.5 to 5	4/11/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	SB-05-9.5-10	9.5 to 10	4/11/2001	8015B/8015M	<0.1 (4)	25.0; 310 (5)	NA
SB-10	SB-10-10-10.5	10 to 10.5	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
	SB-10-19.5-20	19.5 to 20	4/10/2001	8015B/8015M	<0.1 (4)	<10; <100 (5)	NA
SP-1	SP-1	15	3/15/1988	8015	<1	NA	NA
SP-2	SP-2	15	3/15/1988	8015	1.0	NA	NA



**Table 9**  
**Summary of TPH Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Analytical Method	Petroleum Hydrocarbons (mg/kg)		
					TVPH C <sub>6</sub> -C <sub>11</sub>	TEPH C <sub>12</sub> -C <sub>36</sub>	TPH-Other
Other Site Locations							
SP-3	SP-3	15	3/15/1988	8015	<1	NA	NA
SP-4	SP-4	15	3/15/1988	8015	<1	NA	NA
SVMW-203	PVMW-3-2-3	2 to 3	7/16/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-3-7-8	7 to 8	7/16/2002	EPA 8015M (1)	<1	<10	NA
SVMW-204	PVMW-4-2.5-3.5	2.5 to 3.5	7/17/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-4-7-8	7 to 8	7/17/2002	EPA 8015M (1)	<1	<10	NA
SVMW-206	PVMW-6-2.5-3.5	2.5 to 3.5	7/16/2002	EPA 8015M (1)	<1	28.9 (3)	NA
	PVMW-6-7-8	7 to 8	7/16/2002	EPA 8015M (1)	<1	<10	NA
SVMW-212	PVMW-12-1-2	1 to 2	7/2/2002	EPA 8015M (1)	<1	<10	NA
	PVMW-12-7.5-8.5	7.5 to 8.5	7/2/2002	EPA 8015M (1)	<1	<10	NA



## Table 9

### *Summary of TPH Analytical Results for Soil Samples*

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

#### Abbreviations

bgs	below ground or floor surface
Dup	duplicate or sequential sample
mg/kg	milligrams per kilogram
NA	Sample was not tested for this analyte, or the result is not available.
ND	Analyte was not detected above the analytical method reporting limit. Reporting limit unknown.
TPH	Total petroleum hydrocarbons
TEPH	Total extractable petroleum hydrocarbons, carbon range from 12 to 36, unless otherwise noted.
TVPH	Total volatile petroleum hydrocarbons, carbon range from 6 to 11, unless otherwise noted.
TPH-Other	Total petroleum hydrocarbons, no specific carbon range identified, generally data from samples collected before 1990.

#### Notes

- (1) The TEPH analyses also included silica gel cleanup.
- (2) The laboratory reported that the chromatographic pattern for these samples had a broad, poorly resolved type and range somewhat heavier than diesel.
- (3) The laboratory reported that the chromatographic pattern for these samples had a broad, partially resolved type and range somewhat heavier than diesel.
- (4) TVPH result for this sample was quantified in the C<sub>5</sub> - C<sub>10</sub> range.
- (5) The first TEPH result refers to hydrocarbons in the C<sub>10</sub> - C<sub>20</sub> range, and the second result listed refers to those in the C<sub>20</sub> - C<sub>30</sub> range.
- (6) The laboratory reported that the chromatographic pattern for these samples had a broad unresolved type and range somewhat heavier than diesel.
- (7) The laboratory reported two chromatographic patterns for this sample. One pattern had a narrow, partially resolved type and fell within the diesel range. The second pattern had a broad, poorly resolved type and range somewhat heavier than diesel.
- (8) The laboratory reported two chromatographic patterns for this sample. One pattern had a broad, poorly resolved type and a range somewhat heavier than diesel. The second pattern had a broad, poorly resolved type and fell within the diesel range.
- (9) The laboratory reported two chromatographic patterns for this sample. One pattern had broad, poorly resolved type and fell within the diesel range. The second pattern had a broad, partially resolved type and a range somewhat heavier than diesel.
- (10) This sample was analyzed for oil & grease by infrared spectroscopy.
- (11) This sample was analyzed for petroleum hydrocarbons by infrared spectroscopy.
- (12) The laboratory reported two chromatographic patterns for this sample. One pattern had a broad, poorly resolved type and a range somewhat heavier than diesel. The second pattern had broad, poorly resolved type and range much heavier than diesel.
- (13) This sample was also analyzed qualitatively by gas chromatograph and flame ionization detector. The hydrocarbon fraction detected was that typical of lubricating oil (C<sub>20</sub> - C<sub>35</sub> carbon range).



**Table 9**  
***Summary of TPH Analytical Results for Soil Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Notes**

- (14) For sample C-40, the laboratory report indicated that, "The hydrocarbon pattern matches closely with the DDE-24 oil sample.  
The linseed oil, Pale oil and DDE-26 are not detected in the soils."
- (15) The laboratory reported two chromatographic patterns for this sample. One pattern had a broad, poorly resolved type and a range somewhat heavier than diesel.  
The second pattern had broad, partially resolved type and a range much heavier than diesel.
- (16) The product type is in the range of heavy crude oil.
- (17) The laboratory reported two chromatographic patterns for this sample. One pattern had broad, partially resolved type and a range somewhat lighter than diesel.  
The second pattern had a broad, poorly resolved type and a range somewhat heavier than diesel.
- (18) The laboratory reported two chromatographic patterns for this sample. One pattern had a broad, poorly resolved type and a range somewhat heavier than diesel.  
The second pattern had several fully resolved peaks and a range somewhat lighter than diesel.



**Table 10**  
**Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																		pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc			Cyanide
Central Building P Area																									
B2	SS-B2-10	10	7/22/1997	DTSC	ND	ND	ND	ND	ND	34.4	NA	ND	60.1	ND	ND	ND	237	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B2-15	15	7/22/1997	DTSC	ND	ND	ND	ND	ND	159	NA	ND	424	ND	ND	ND	529	ND	ND	ND	ND	129	NA	NA	NA
	SS-B2-15 (Dup)	15	7/22/1997	DTSC	ND	ND	ND	ND	ND	158	NA	ND	578	6.80	ND	ND	357	ND	ND	ND	ND	ND	NA	NA	NA
B3A	SS-B3A-5	5	7/22/1997	DTSC	ND	ND	ND	ND	ND	7.70	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3A-10	10	7/22/1997	DTSC	ND	ND	ND	ND	ND	12.3	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3A-15	15	7/22/1997	DTSC	ND	ND	ND	ND	ND	8.70	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3A-20	20	7/22/1997	DTSC	ND	ND	ND	ND	ND	6.50	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3A-25	25	7/22/1997	DTSC	ND	ND	ND	ND	ND	9.30	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
B3C	SS-B3C-5	5	7/23/1997	DTSC	ND	ND	ND	ND	ND	13.5	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3C-10	10	7/23/1997	DTSC	ND	ND	ND	ND	ND	8.00	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3C-15	15	7/23/1997	DTSC	ND	ND	ND	ND	ND	7.60	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3C-20	20	7/23/1997	DTSC	ND	ND	ND	ND	ND	6.30	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-B3C-25	25	7/23/1997	DTSC	ND	ND	ND	ND	ND	10.6	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
MS1	MS1-5-6	5 to 6	12/5/2002	EKI	<2.5	<2.5	103	<2.5	<2.5	5.44	<2.50	4.58	15.0	<2.5	<0.10	<2.5	4.91	<2.5	<2.5	<2.5	12.3	14.6	<0.08	8.86	1.36
	MS1-15-15.5	15 to 15.5	12/5/2002	EKI	<2.5	<2.5	188	<2.5	<2.5	7.63	<2.50	5.87	15.1	<2.5	<0.10	<2.5	5.74	<2.5	<2.5	<2.5	19.3	26.4	<0.08	8.72	3.51
PMW-25	PMW25-1-1.5	1 to 1.5	11/25/2002	EKI	<2.5	<2.5	159	<2.5	<2.5	4.57	<2.50	4.33	14.2	4.27	<0.10	<2.5	3.37	<2.5	<2.5	<2.5	11.0	33.7	NA	NA	NA
	PMW25-10-10.5	10 to 10.5	11/25/2002	EKI	<2.5	<2.5	88.3	<2.5	<2.5	5.27	<2.50	3.67	8.06	<2.5	<0.10	<2.5	3.36	<2.5	<2.5	<2.5	10.6	14.1	NA	NA	NA
PMW-26	PMW26-5-5.5	5 to 5.5	12/3/2002	EKI	<2.5	<2.5	174	<2.5	<2.5	40.1	8.74	6.51	143	12.5	<0.10	<2.5	53.1	<2.5	<2.5	<2.5	17.8	63.1	<0.08	11.1	6.14
	PMW26-10-11	10 to 11	12/3/2002	EKI	<2.5	<2.5	137	<2.5	<2.5	38.3	8.67	6.53	50.4	8.71	<0.10	<2.5	47.8	<2.5	<2.5	<2.5	12.7	59.9	<0.08	11.1	6.39
	PMW26-25-25.5	25 to 25.5	12/3/2002	EKI	<2.5	<2.5	159	<2.5	<2.5	9.83	<2.50	5.60	12.8	<2.5	<0.10	<2.5	4.95	<2.5	<2.5	<2.5	16.9	27.8	<0.08	8.40	2.95
	PMW26-35-35.5	35 to 35.5	12/3/2002	EKI	<2.5	<2.5	143	<2.5	<2.5	7.14	<2.50	5.59	11.8	<2.5	<0.10	<2.5	4.21	<2.5	<2.5	<2.5	18.0	19.9	<0.08	8.23	3.63
PSVE-1	PSVE-1-1-2	1 to 2	6/26/2002	EKI	<2.5	<2.5	145	<2.5	<2.5	8.17	<1	5.36	440	62.4	<0.1	<2.5	11.0	<2.5	<2.5	<2.5	18.7	146	<0.08	8.82	(3)
	PSVE-1-9.5-10	9.5 to 10	6/26/2002	EKI	<2.5	<2.5	110	<2.5	<2.5	7.18	<1	3.71	41.5	7.38	<0.1	<2.5	4.07	<2.5	<2.5	<2.5	14.3	31.5	<0.08	8.86	(3)
PSVE-2	PSVE-2-1.5-2.5	1.5 to 2.5	6/25/2002	EKI	<2.5	<2.5	81.5	<2.5	<2.5	3.44	<1	3.31	26.0	4.34	<0.1	<2.5	2.76	<2.5	<2.5	<2.5	9.90	21.3	<0.08	8.68	(3)
	PSVE-2-8-8.5	8 to 8.5	6/25/2002	EKI	<2.5	<2.5	157	<2.5	<2.5	7.08	<1	4.95	15.8	3.52	<0.1	<2.5	4.90	<2.5	<2.5	<2.5	14.1	22.5	<0.08	8.57	(3)
	PSVE-2-55.5-56.5	55.5 to 56.5	6/25/2002	EKI	<2.5	<2.5	124	<2.5	<2.5	7.69	<1	3.97	10.5	3.60	<0.1	<2.5	4.12	<2.5	<2.5	<2.5	13.2	20.4	<0.08	8.51	(3)
PSVE-3	PSVE-3-2.5-3.5	2.5 to 3.5	6/26/2002	EKI	<2.5	<2.5	131	<2.5	<2.5	6.75	<1	11.8	11.9	5.25	<0.1	<2.5	4.69	<2.5	<2.5	<2.5	13.1	57.2	<0.08	9.54	(3)
	PSVE-3-7.5-8.5	7.5 to 8.5	6/26/2002	EKI	<2.5	<2.5	185	<2.5	<2.5	7.37	<1	5.21	9.04	2.55	<0.1	<2.5	5.18	<2.5	<2.5	<2.5	14.3	25.1	<0.08	9.29	(3)
	PSVE-3-41.5-42	41.5 to 42	6/26/2002	EKI	<2.5	<2.5	145	<2.5	<2.5	13.0	<1	6.34	17.1	<2.5	<0.1	<2.5	6.71	<2.5	<2.5	<2.5	15.5	24.4	<0.08	8.32	(3)
PSVE-4	PSVE-4-1.5-2.5	1.5 to 2.5	6/25/2002	EKI	<2.5	<2.5	102	<2.5	<2.5	7.56	<1	4.01	6.80	<2.5	<0.1	<2.5	4.12	<2.5	<2.5	<2.5	12.2	18.2	<0.08	7.80	(3)
	PSVE-4-7.5-8.5	7.5 to 8.5	6/25/2002	EKI	<2.5	<2.5	148	<2.5	<2.5	8.31	<1	4.54	8.79	3.18	<0.1	<2.5	5.17	<2.5	<2.5	<2.5	11.7	30.7	<0.08	7.98	(3)
SB-6	SB-06-4.5-5	4.5 to 5	4/10/2001	EKI	<10	1.50	110	<1	<1	8.60	NA	7.40	26.0	2.30	<0.1	<5	5.70	<1	<1	<1	<1	36.0	NA	NA	NA
	SB-06-9.5-10	9.5 to 10	4/10/2001	EKI	<10	1.50	170	<1	<1	11.0	NA	8.50	30.0	2.60	<0.1	<5	7.20	<1	<1	<1	23.0	46.0	NA	NA	NA
SB-7	SB-07-4.5-5	4.5 to 5	4/10/2001	EKI	<10	1.00	110	<1	<1	6.00	<0.1	5.90	11.0	0.60	<0.1	<5	4.30	<1	<1	<1	15.0	22.0	NA	NA	NA
	SB-07-9.5-10	9.5 to 10	4/10/2001	EKI	<10	1.50	130	<1	<1	9.70	NA	7.00	19.0	1.10	<0.1	<5	6.10	<1	<1	<1	22.0	29.0	NA	NA	NA



Table 10

## Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																		pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc			Cyanide
Central Building P Area																									
SB-8	SB-08-9.5-10	9.5 to 10	4/10/2001	EKI	<10	1.70	210	<1	<1	14.0	<0.1	8.50	67.0	7.90	<0.1	<5	50.0	<1	<1	<1	18.0	83.0	NA	NA	NA
	SB-08-14.5-15	14.5 to 15	4/10/2001	EKI	<10	1.50	210	<1	<1	19.0	NA	9.20	46.0	6.40	<0.1	<5	53.0	<1	<1	<1	23.0	67.0	NA	NA	NA
SB-9	SB-09-9-9.5	9 to 9.5	4/10/2001	EKI	<10	1.10	120	<1	<1	12.0	<0.1	6.40	14.0	1.80	<0.1	<5	6.20	<1	<1	<1	19.0	30.0	NA	NA	NA
	SB-09-19.5-20	19.5 to 20	4/10/2001	EKI	<10	2.30	190	<1	<1	11.0	NA	8.70	22.0	1.40	<0.1	<5	6.70	<1	<1	<1	26.0	33.0	NA	NA	NA
SVMW-202	VMW-2-20.5-21.5	20.5 to 21.5	3/20/2002	EKI	<5	<5	158	<5	<5	14.3	<2.5	5.57	19.7	<5	<0.2	<5	7.05	<5	<5	<5	16.7	39.4	NA	8.51	NA
	VMW-2-30.5-31.5	30.5 to 31.5	3/20/2002	EKI	<5	<5	185	<5	<5	8.99	<2.5	6.39	18.1	<5	<0.2	<5	5.33	<5	<5	<5	18.2	30.3	NA	8.50	NA
	VMW-2-45.5-46.5	45.5 to 46.5	3/20/2002	EKI	<5	<5	113	<5	<5	7.52	<2.5	<5	12.6	<5	<0.2	<5	<5	<5	<5	<5	12.7	35.9	NA	8.49	NA
SVMW-205	PVMW-5-1-2	1 to 2	7/17/2002	EKI	<2.5	<2.5	101	<2.5	<2.5	5.96	<2	3.85	7.47	5.24	<0.1	<2.5	3.57	<2.5	<2.5	<2.5	11.9	25.5	NA	NA	(3)
	PVMW-5-7-8	7 to 8	7/17/2002	EKI	<2.5	<2.5	224	<2.5	<2.5	14.2	<2	9.05	23.4	26.9	<0.1	<2.5	9.20	<2.5	<2.5	<2.5	24.7	140	NA	NA	(3)
SVMW-207	PVMW-7-3-4	3 to 4	6/28/2002	EKI	<2.5	<2.5	151	<2.5	<2.5	7.46	<1	5.30	10.7	45.9	<0.1	<2.5	5.03	<2.5	<2.5	<2.5	14.0	26.8	<0.08	7.76	(3)
	PVMW-7-7.5-8.5	7.5 to 8.5	6/28/2002	EKI	<2.5	<2.5	88.1	<2.5	<2.5	4.55	<1	3.95	7.30	<2.5	<0.1	<2.5	3.28	<2.5	<2.5	<2.5	10.7	16.0	<0.08	8.07	(3)
	PVMW-7-50.5-51.5	50.5 to 51.5	6/28/2002	EKI	<2.5	<2.5	56.6	<2.5	<2.5	<2.5	<1	<2.5	4.97	<2.5	<0.1	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	13.1	<0.08	8.59	(3)
SVMW-208	PVMW-8-1-2	1 to 2	6/28/2002	EKI	<2.5	<2.5	141	<2.5	<2.5	11.4	<1	6.52	13.6	5.83	<0.1	<2.5	5.09	<2.5	<2.5	<2.5	13.9	37.4	<0.08	8.26	(3)
	PVMW-8-7.5-8.5	7.5 to 8.5	6/28/2002	EKI	<2.5	<2.5	177	<2.5	<2.5	9.87	<1	5.82	11.0	<2.5	<0.1	<2.5	6.13	<2.5	<2.5	<2.5	14.6	23.4	<0.08	7.30	(3)
	PVMW-8-26-27	26 to 27	6/28/2002	EKI	<2.5	<2.5	181	<2.5	<2.5	10.5	<1	5.39	12.5	<2.5	<0.1	<2.5	5.97	<2.5	<2.5	<2.5	18.0	24.4	<0.08	8.34	(3)
	PVMW-8-50.5-51.5	50.5 to 51.5	6/28/2002	EKI	<2.5	<2.5	108	<2.5	<2.5	7.00	<1	4.21	9.94	<2.5	<0.1	<2.5	3.55	<2.5	<2.5	<2.5	10.9	17.3	<0.08	8.50	(3)
SVMW-209	PVMW-9-1.5-2.5	1.5 to 2.5	6/25/2002	EKI	<2.5	<2.5	89.5	<2.5	<2.5	5.76	<1	3.63	7.54	<2.5	<0.1	<2.5	3.6	<2.5	<2.5	<2.5	10.7	19.4	<0.08	8.17	(3)
	PVMW-9-13-14	13 to 14	6/27/2002	EKI	<2.5	<2.5	127	<2.5	<2.5	13.5	<1	4.79	17.8	<2.5	<0.1	<2.5	6.09	<2.5	<2.5	<2.5	20.7	24.2	<0.08	8.59	(3)
SVMW-210	PVMW-10-1-2	1 to 2	6/27/2002	EKI	<2.5	<2.5	93.9	<2.5	<2.5	4.01	<1	3.35	7.04	4.34	<0.1	<2.5	2.85	<2.5	<2.5	<2.5	8.55	54.0	<0.08	9.31	(3)
	PVMW-10-7.5-8.5	7.5 to 8.5	6/27/2002	EKI	<2.5	<2.5	215	<2.5	<2.5	7.03	<1	5.82	13.0	<2.5	<0.1	<2.5	5.26	<2.5	<2.5	<2.5	14.1	20.5	<0.08	8.32	(3)
SVMW-211	PVMW-11-3-4	3 to 4	7/1/2002	EKI	<2.5	<2.5	109	<2.5	<2.5	7.26	<1	3.43	6.92	<2.5	<0.1	<2.5	3.05	<2.5	<2.5	<2.5	10.4	17.0	<0.08	9.08	(3)
	PVMW-11-10.5-11.5	10.5 to 11.5	7/1/2002	EKI	<2.5	<2.5	148	<2.5	<2.5	5.17	<1	5.70	12.8	<2.5	<0.1	<2.5	4.89	<2.5	<2.5	<2.5	15.6	35.3	<0.08	8.40	(3)
W1	W1-1-1.5	1 to 1.5	11/26/2002	EKI	<2.5	<2.5	122	<2.5	<2.5	6.32	<2.50	4.47	13.5	4.27	<0.10	<2.5	4.73	<2.5	<2.5	<2.5	12.1	23.4	<0.25	8.83	6.92
	W1-9.5-10	9.5 to 10	11/26/2002	EKI	<2.5	<2.5	95.9	<2.5	<2.5	6.40	<2.50	3.58	8.64	<2.5	<0.10	<2.5	26.8	<2.5	<2.5	<2.5	9.41	17.7	<0.25	9.18	3.05
	W1-25-25.5	25 to 25.5	11/26/2002	EKI	<2.5	<2.5	161	<2.5	<2.5	8.90	<2.50	4.95	14.3	<2.5	<0.10	<2.5	6.18	<2.5	<2.5	<2.5	14.7	24.4	<0.25	8.48	5.11
W2	W2-1-1.5	1 to 1.5	12/2/2002	EKI	<2.5	<2.5	95.7	<2.5	<2.5	5.76	<2.50	4.11	16.7	5.20	<0.10	<2.5	6.10	<2.5	<2.5	<2.5	10.0	24.8	<0.25	10.0	3.90
	W2-5-6	5 to 6	12/2/2002	EKI	<2.5	<2.5	118	<2.5	<2.5	6.38	<2.50	4.62	11.6	5.07	<0.10	<2.5	11.3	<2.5	<2.5	<2.5	11.4	20.4	<0.25	9.70	7.05
	W2-10-11	10 to 11	12/2/2002	EKI	<2.5	<2.5	96.2	<2.5	<2.5	16.7	<2.50	14.3	28.4	211	<0.10	<2.5	21.4	<2.5	3.02	<2.5	10.1	38.4	<0.25	10.1	3.13
W3	W3-1-2	1 to 2	12/2/2002	EKI	<2.5	<2.5	141	<2.5	<2.5	7.27	<2.50	4.92	9.52	2.56	<0.10	<2.5	5.35	<2.5	<2.5	<2.5	12.9	22.3	<0.25	9.68	6.69
	W3-10.5-11.5	10.5 to 11.5	12/2/2002	EKI	<2.5	<2.5	133	<2.5	<2.5	5.51	<2.50	3.88	12.4	<2.5	<0.10	<2.5	3.81	<2.5	<2.5	<2.5	9.04	15.5	<0.25	8.37	3.28
W4	W4-1-2	1 to 2	12/2/2002	EKI	<2.5	<2.5	157	<2.5	<2.5	7.64	<2.50	4.92	9.25	<2.5	<0.10	<2.5	5.32	<2.5	<2.5	<2.5	13.3	21.4	<0.25	9.07	7.48
	W4-5-6	5 to 6	12/2/2002	EKI	<2.5	<2.5	140	<2.5	<2.5	6.47	<2.50	4.38	8.62	<2.5	<0.10	<2.5	4.85	<2.5	<2.5	<2.5	12.3	17.5	<0.25	8.93	6.59
	W4-10-11	10 to 11	12/2/2002	EKI	<2.5	<2.5	165	<2.5	<2.5	5.50	<2.50	4.51	12.7	3.28	<0.10	<2.5	4.68	<2.5	<2.5	<2.5	12.0	22.4	<0.25	8.84	5.84
W5	W5-1.5-2.5	1.5 to 2.5	12/2/2002	EKI	<2.5	<2.5	183	<2.5	<2.5	7.77	<2.50	5.53	10.2	<2.5	<0.10	<2.5	5.67	<2.5	<2.5	<2.5	14.4	22.3	0.58	9.40	4.14
	W5-10-11	10 to 11	12/2/2002	EKI	<2.5	<2.5	197	<2.5	<2.5	5.89	<2.50	5.97	10.4	<2.5	<0.10	<2.5	5.29	<2.5	<2.5	<2.5	15.6	21.5	<0.25	7.89	5.39



Table 10

## Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																		pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc			Cyanide
Central Building P Area																									
W6	W6-2-2.5	2 to 2.5	12/3/2002	EKI	<2.5	<2.5	101	<2.5	<2.5	5.94	<2.50	3.92	13.9	7.92	<0.10	<2.5	4.40	<2.5	<2.5	<2.5	10.7	37.2	<0.08	8.41	6.06
	W6-5-6	5 to 6	12/3/2002	EKI	<2.5	<2.5	144	<2.5	<2.5	7.00	<2.50	4.23	11.5	4.59	<0.10	<2.5	4.67	<2.5	<2.5	<2.5	12.0	30.1	<0.08	10.8	3.49
W7	W7-5-5.5	5 to 5.5	12/4/2002	EKI	<2.5	<2.5	128	<2.5	<2.5	16.5	<2.50	13.5	41.1	7.29	<0.10	<2.5	19.6	<2.5	<2.5	<2.5	11.9	25.4	0.39	11.0	4.35
	W7-15-15.5	15 to 15.5	12/4/2002	EKI	<2.5	<2.5	167	<2.5	<2.5	13.6	<2.50	4.95	12.9	<2.5	<0.10	<2.5	6.19	<2.5	<2.5	<2.5	13.8	21.7	<0.08	8.71	2.84
W8	W8-7.5-8.5	7.5 to 8.5	12/3/2002	EKI	<2.5	<2.5	132	<2.5	<2.5	8.25	<2.50	4.73	10.3	<2.5	<0.10	<2.5	5.44	<2.5	<2.5	<2.5	14.3	21.5	<0.08	11.4	5.39
	W8-15-16	15 to 16	12/3/2002	EKI	<2.5	<2.5	232	<2.5	<2.5	8.94	5.57	6.42	11.6	<2.5	<0.10	<2.5	4.31	<2.5	<2.5	<2.5	13.7	18.9	<0.08	9.14	3.65
	W8-25-26	25 to 26	12/3/2002	EKI	<2.5	<2.5	155	<2.5	<2.5	16.1	6.88	6.60	13.6	<2.5	<0.10	<2.5	4.73	<2.5	<2.5	<2.5	17.4	23.7	<0.08	7.98	4.16
W9	W9-1.5-2.5	1.5 to 2.5	12/4/2002	EKI	<2.5	10.0	123	<2.5	<2.5	330	<2.50	6.84	103	41.2	<0.10	<2.5	124	<2.5	<2.5	<2.5	10.4	58.0	0.37	10.4	6.42
	W9-10-11	10 to 11	12/4/2002	EKI	<2.5	<2.5	78.5	<2.5	<2.5	27.4	5.09	4.36	16.2	103	<0.10	<2.5	21.0	<2.5	<2.5	<2.5	4.67	18.5	0.14	9.19	7.03
	W9-25-26	25 to 26	12/4/2002	EKI	<2.5	<2.5	139	<2.5	<2.5	27.1	<2.50	4.17	30.0	<2.5	<0.10	<2.5	29.0	<2.5	<2.5	<2.5	13.7	25.9	<0.08	4.93	5.23
W10	W10-2.5-3	2.5 to 3	12/4/2002	EKI	<2.5	<2.5	160	<2.5	<2.5	20.0	<2.50	5.31	81.1	5.75	<0.10	<2.5	126	<2.5	<2.5	<2.5	13.4	35.0	<0.08	8.55	7.14
	W10-11.5-12	11.5 to 12	12/4/2002	EKI	<2.5	<2.5	178	<2.5	<2.5	8.24	<2.50	4.40	13.7	<2.5	<0.10	<2.5	8.53	<2.5	<2.5	<2.5	9.96	20.7	<0.08	9.48	3.15
	W10-26.5-27	26.5 to 27	12/4/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	11.0	<2.50	4.89	13.2	<2.5	<0.10	<2.5	10.2	<2.5	<2.5	<2.5	16.6	22.2	<0.08	8.73	4.71
W11	W11-10-11	10 to 11	12/6/2002	EKI	<2.5	<2.5	77.6	<2.5	<2.5	2.93	<2.50	3.19	6.55	<2.5	<0.10	<2.5	<2.5	<2.5	<2.5	<2.5	8.51	17.4	<0.08	8.98	4.91
	W11-20-21	20 to 21	12/6/2002	EKI	<2.5	<2.5	107	<2.5	<2.5	5.45	<2.50	4.58	14.8	<2.5	<0.10	<2.5	3.99	<2.5	<2.5	<2.5	11.6	21.8	<0.08	8.23	3.39
W12	W12-3-4	3 to 4	12/4/2002	EKI	<2.5	<2.5	48.7	<2.5	<2.5	263	5.50	5.31	189	63.3	<0.10	<2.5	1,100	<2.5	<2.5	<2.5	15.1	61.8	<0.08	7.87	15.6
	W12-12-13	12 to 13	12/4/2002	EKI	<2.5	<2.5	69.2	<2.5	<2.5	16.4	2.67	2.87	11.2	32.5	<0.10	<2.5	30.7	<2.5	<2.5	<2.5	11.3	13.3	<0.08	6.21	7.62
W13	W13-5-5.5	5 to 5.5	12/4/2002	EKI	<2.5	<2.5	80.5	<2.5	<2.5	9.21	<2.50	3.06	21.3	<2.5	<0.10	<2.5	60.1	<2.5	<2.5	<2.5	12.6	11.1	<0.08	5.96	3.87
	W13-15-15.5	15 to 15.5	12/4/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	9.69	<2.50	4.49	166	38.4	<0.10	<2.5	23.0	<2.5	<2.5	<2.5	12.4	180	<0.08	9.14	6.13
W14	W14-1-2	1 to 2	12/4/2002	EKI	<2.5	<2.5	151	<2.5	<2.5	8.31	<2.50	5.64	9.66	<2.5	<0.10	<2.5	5.91	<2.5	<2.5	<2.5	14.9	20.1	<0.08	7.01	5.79
	W14-10-11	10 to 11	12/4/2002	EKI	<2.5	<2.5	145	<2.5	<2.5	8.63	<2.50	5.40	21.9	3.75	<0.10	<2.5	5.29	<2.5	<2.5	<2.5	11.8	99.7	<0.08	9.11	3.32
W15	W15-7.5-8.5	7.5 to 8.5	12/5/2002	EKI	<2.5	<2.5	80.9	<2.5	<2.5	6.50	<2.50	4.48	16.7	5.48	<0.10	<2.5	4.35	<2.5	<2.5	<2.5	9.43	39.0	<0.08	8.95	2.78
	W15-12.5-13.5	12.5 to 13.5	12/5/2002	EKI	<2.5	<2.5	121	<2.5	<2.5	8.58	<2.50	5.13	19.7	6.43	<0.10	<2.5	5.70	<2.5	<2.5	<2.5	12.3	47.7	<0.08	9.70	2.74
	W15-28-29	28 to 29	12/5/2002	EKI	<2.5	<2.5	180	<2.5	<2.5	9.60	<2.50	5.63	16.2	<2.5	<0.10	<2.5	5.81	<2.5	<2.5	<2.5	17.9	21.7	<0.08	8.98	3.51
W16	W16-8-9	8 to 9	12/5/2002	EKI	<2.5	<2.5	112	<2.5	<2.5	7.74	<2.50	5.56	18.9	8.27	<0.10	<2.5	4.75	<2.5	<2.5	<2.5	12.6	46.8	<0.08	10.3	3.89
	W16-13-14	13 to 14	12/5/2002	EKI	<2.5	<2.5	187	<2.5	<2.5	17.2	<2.50	5.83	15.5	<2.5	<0.10	<2.5	6.67	<2.5	<2.5	<2.5	17.6	24.1	<0.08	10.2	3.98
	W16-28-29	28 to 29	12/5/2002	EKI	<2.5	<2.5	170	<2.5	<2.5	13.0	3.77	5.79	16.0	<2.5	<0.10	<2.5	9.39	<2.5	<2.5	<2.5	17.5	22.0	<0.08	9.72	5.91
W17	W17-10.5-11.5	10.5 to 11.5	12/2/2002	EKI	<2.5	<2.5	114	<2.5	<2.5	50.2	15.7	3.97	137	9.38	<0.10	<2.5	187	<2.5	<2.5	<2.5	10.2	43.3	<0.25	10.6	4.08
	W17-22-23	22 to 23	12/2/2002	EKI	<2.5	<2.5	133	<2.5	<2.5	65.1	22.8	4.60	193	<2.5	<0.10	<2.5	218	<2.5	<2.5	<2.5	16.9	56.9	<0.25	9.01	7.42
	W17-32-33	32 to 33	12/2/2002	EKI	<2.5	<2.5	153	<2.5	<2.5	34.3	13.0	5.28	70.2	<2.5	<0.10	<2.5	129	<2.5	<2.5	<2.5	15.6	35.5	<0.25	9.09	5.87
W18	W18-6.5-7.5	6.5 to 7.5	12/5/2002	EKI	<2.5	<2.5	106	<2.5	<2.5	5.87	<2.50	11.8	94.4	12.1	<0.10	<2.5	7.01	<2.5	<2.5	<2.5	11.5	38.0	<0.08	8.82	4.31
	W18-12-12.5	12 to 12.5	12/5/2002	EKI	<2.5	<2.5	233	<2.5	<2.5	10.3	<2.50	9.26	27.5	4.50	<0.10	<2.5	7.91	<2.5	<2.5	<2.5	15.7	26.0	<0.08	10.1	3.56
W19	W19-5-6	5 to 6	12/5/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	7.76	<2.50	8.84	35.3	7.99	<0.10	<2.5	8.51	<2.5	<2.5	<2.5	14.1	26.0	<0.08	9.79	4.19
	W19-10-10.5	10 to 10.5	12/5/2002	EKI	<2.5	<2.5	121	<2.5	<2.5	8.19	<2.50	6.81	11.1	<2.5	<0.10	<2.5	7.60	<2.5	<2.5	<2.5	12.9	19.9	<0.08	9.45	2.66



Table 10

## Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																		pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc			Cyanide
Central Building P Area																									
W20	W20-5-6	5 to 6	12/2/2002	EKI	<2.5	<2.5	91.5	<2.5	<2.5	7.51	5.84	3.58	12.8	<2.5	<0.10	<2.5	32.5	<2.5	<2.5	<2.5	8.93	12.7	<0.25	9.74	2.40
	W20-9-9.5	9 to 9.5	12/2/2002	EKI	<2.5	<2.5	88.2	<2.5	<2.5	7.28	<2.50	14.9	10.3	<2.5	<0.10	<2.5	5.30	<2.5	3.18	<2.5	11.1	20.6	<0.25	9.30	3.07
	W20-19-20	19 to 20	12/2/2002	EKI	<2.5	<2.5	125	<2.5	<2.5	8.68	<2.50	13.0	10.6	<2.5	<0.10	<2.5	9.00	<2.5	2.90	<2.5	12.3	22.3	<0.25	8.53	3.42
W21	W21-4-5	4 to 5	12/2/2002	EKI	<2.5	<2.5	106	<2.5	<2.5	6.58	<2.50	4.14	30.6	7.63	<0.10	<2.5	7.10	<2.5	<2.5	<2.5	11.4	31.4	<0.25	9.83	3.23
	W21-9.5-10	9.5 to 10	12/2/2002	EKI	<2.5	<2.5	139	<2.5	<2.5	6.96	<2.50	4.65	27.9	7.40	<0.10	<2.5	6.29	<2.5	<2.5	<2.5	12.8	32.6	<0.25	10.0	3.23
	W21-19-20	19 to 20	12/2/2002	EKI	<2.5	<2.5	171	<2.5	<2.5	6.66	<2.50	5.66	100	3.01	<0.10	<2.5	5.80	<2.5	<2.5	<2.5	16.7	22.5	<0.25	9.31	5.84
W22	W22-3.5-4	3.5 to 4	12/5/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	7.61	<2.50	5.05	297	21.3	<0.10	<2.5	12.6	<2.5	<2.5	<2.5	13.6	20.2	<0.08	9.50	14.2
	W22-11.5-12.5	11.5 to 12.5	12/5/2002	EKI	<2.5	<2.5	119	<2.5	<2.5	7.19	<2.50	5.27	159	11.2	<0.10	<2.5	10.1	<2.5	<2.5	<2.5	12.5	21.4	0.29	9.88	4.16
	W22-26.5-27.5	26.5 to 27.5	12/5/2002	EKI	<2.5	<2.5	158	<2.5	<2.5	7.20	<2.50	5.29	22.2	<2.5	<0.10	<2.5	4.26	<2.5	<2.5	<2.5	15.2	19.4	<0.08	9.37	4.47
W23	W23-4-5	4 to 5	12/2/2002	EKI	<2.5	<2.5	94.8	<2.5	<2.5	16.3	<2.50	4.37	11.4	2.58	<0.10	<2.5	9.40	<2.5	<2.5	<2.5	10.2	19.9	<0.25	10.2	5.25
	W23-18-19	18 to 19	12/2/2002	EKI	<2.5	<2.5	153	<2.5	<2.5	9.76	<2.50	4.42	10.4	<2.5	<0.10	<2.5	5.06	<2.5	<2.5	<2.5	14.5	25.1	<0.25	9.10	3.72
W24	W24-6.5-7.5	6.5 to 7.5	12/5/2002	EKI	<2.5	<2.5	104	<2.5	<2.5	6.36	<2.50	3.86	8.06	<2.5	<0.10	<2.5	3.91	<2.5	<2.5	<2.5	11.0	13.4	<0.08	9.94	3.60
	W24-11.5-12	11.5 to 12	12/5/2002	EKI	<2.5	<2.5	105	<2.5	<2.5	7.26	<2.50	3.87	10.7	<2.5	<0.10	<2.5	5.54	<2.5	<2.5	<2.5	10.9	17.7	<0.08	9.65	2.94
W25	W25-1.5-2.5	1.5 to 2.5	12/6/2002	EKI	<2.5	<2.5	111	<2.5	4.52	95.0	2.88	4.64	949	1,970	<0.10	<2.5	492	<2.5	3.40	<2.5	11.7	796	<0.08	6.36	5.67
	W25-10-11	10 to 11	12/6/2002	EKI	<2.5	<2.5	155	<2.5	<2.5	44.6	<2.50	5.60	261	257	<0.10	<2.5	321	<2.5	<2.5	<2.5	13.7	452	<0.08	6.88	4.57
	W25-20-21	20 to 21	12/6/2002	EKI	<2.5	4.45	147	<2.5	<2.5	20.1	<2.50	5.22	22.2	3.85	<0.10	<2.5	22.9	<2.5	<2.5	<2.5	18.6	29.1	<0.08	8.35	4.68
W26	W26-1.5-2.5	1.5 to 2.5	12/5/2002	EKI	<2.5	<2.5	74.4	<2.5	<2.5	16.1	<2.50	3.12	59.0	25.4	<0.10	<2.5	131	<2.5	<2.5	<2.5	8.02	34.8	<0.08	9.81	10.8
	W26-10-11	10 to 11	12/5/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	65.5	<2.50	3.75	295	304	<0.10	<2.5	703	<2.5	<2.5	<2.5	10.3	251	<0.08	9.45	8.21
	W26-25-26	25 to 26	12/5/2002	EKI	<2.5	<2.5	167	<2.5	<2.5	64.0	<2.50	5.51	92.7	4.46	<0.10	<2.5	217	<2.5	<2.5	<2.5	19.2	60.1	<0.08	8.34	6.22
	W26-35.5-36.5	35.5 to 36.5	12/5/2002	EKI	<2.5	<2.5	148	<2.5	<2.5	12.3	<2.50	4.9	13.5	<2.5	<0.10	<2.5	9.37	<2.5	<2.5	<2.5	15.9	21.7	<0.08	9.34	3.73
W27	W27-3-4	3 to 4	12/3/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	7.12	<2.50	4.73	9.71	<2.5	<0.10	<2.5	5.21	<2.5	<2.5	<2.5	13.0	20.6	<0.08	9.46	3.46
	W27-7-7.5	7 to 7.5	12/3/2002	EKI	<2.5	<2.5	126	<2.5	<2.5	6.57	<2.50	5.95	15.4	3.52	<0.10	<2.5	5.49	<2.5	<2.5	<2.5	11.6	21.0	<0.08	9.73	2.85
Building A Area																									
A1	A1-10-10.5	10 to 10.5	8/27/2002	EKI	<2.5	<2.5	140	<2.5	<2.5	6.45	<1	3.58	236	3,990	<0.1	<2.5	4.45	<2.5	<2.5	<2.5	11.0	269	NA	NA	NA
A2	A2-4.5-5	4.5 to 5	8/27/2002	EKI	<2.5	<2.5	97.7	<2.5	<2.5	3.58	<1	2.71	7.43	<2.5	<0.1	<2.5	3.39	<2.5	<2.5	<2.5	9.12	12.6	NA	NA	NA
	A2-10-10.5	10 to 10.5	8/27/2002	EKI	<2.5	<2.5	201	<2.5	<2.5	7.33	<1	5.48	15.7	4.06	<0.1	<2.5	5.68	<2.5	<2.5	<2.5	13.8	19.8	NA	NA	NA
A3	A3-10-10.5	10 to 10.5	8/27/2002	EKI	<2.5	<2.5	193	<2.5	<2.5	4.15	<1	4.53	15.9	29.5	<0.1	<2.5	3.97	<2.5	<2.5	<2.5	17.2	18.8	NA	NA	NA
A4	A4-10-10.5	10 to 10.5	8/27/2002	EKI	<2.5	<2.5	173	<2.5	<2.5	6.30	<1	4.50	10.0	<2.5	<0.1	<2.5	3.96	<2.5	<2.5	<2.5	13.2	20.3	NA	NA	NA
A5	A5-5-5.5	5 to 5.5	8/26/2002	EKI	<2.5	<2.5	91.3	<2.5	<2.5	3.21	<1	3.16	7.21	<2.5	<0.1	<2.5	2.65	<2.5	<2.5	<2.5	8.85	12.8	NA	NA	NA
	A5-9.5-10	9.5 to 10	8/26/2002	EKI	<2.5	<2.5	198	<2.5	<2.5	7.89	<1	4.55	11.2	<2.5	<0.1	<2.5	4.43	<2.5	<2.5	<2.5	11.9	43.8	NA	NA	NA
A6	A6-5-5.5	5 to 5.5	8/26/2002	EKI	NA	NA	NA	NA	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	A6-10-10.5	10 to 10.5	8/26/2002	EKI	<2.5	<2.5	158	<2.5	<2.5	12.9	1.97	4.12	10.2	<2.5	<0.1	<2.5	3.92	<2.5	<2.5	<2.5	11.8	25.7	NA	NA	NA
	A6-15-15.5	15 to 15.5	8/26/2002	EKI	NA	NA	NA	NA	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A7	A7-5-5.5	5 to 5.5	8/26/2002	EKI	NA	NA	NA	NA	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	A7-9.5-10	9.5 to 10	8/26/2002	EKI	<2.5	<2.5	145	<2.5	<2.5	9.16	1.31	3.71	10.2	<2.5	<0.1	<2.5	4.25	<2.5	<2.5	<2.5	11.9	17.2	NA	NA	NA
	A7-14.5-15	14.5 to 15	8/26/2002	EKI	NA	NA	NA	NA	NA	NA	1.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table 10

## Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																		pH (2)	Percent Moisture (% wt)		
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc			Cyanide	
Building A Area																										
A8	A8-4.5-5	4.5 to 5	8/26/2002	EKI	<2.5	<2.5	95.6	<2.5	<2.5	6.83	<1	2.84	200	12.5	<0.1	<2.5	3.51	<2.5	<2.5	<2.5	9.83	112	NA	NA	NA	
	A8-10-10.5	10 to 10.5	8/26/2002	EKI	<2.5	<2.5	143	<2.5	<2.5	10.6	2.10	4.34	11.8	<2.5	<0.1	<2.5	4.48	<2.5	<2.5	<2.5	13.5	19.1	NA	NA	NA	
	A8-14.5-15	14.5 to 15	8/26/2002	EKI	NA	NA	NA	NA	NA	NA	4.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
A9	A9-10-10.5	10 to 10.5	8/26/2002	EKI	<2.5	<2.5	114	<2.5	<2.5	4.15	<1	<2.5	14.8	<2.5	<0.1	<2.5	2.62	<2.5	<2.5	<2.5	7.56	13.2	NA	NA	NA	
A10	A10-10-10.5	10 to 10.5	8/28/2002	EKI	<2.5	<2.5	169	<2.5	<2.5	11.5	<1	4.69	10.7	6.49	<0.1	<2.5	4.87	<2.5	<2.5	<2.5	11.4	19.9	NA	NA	NA	
A11	A11-10-10.5	10 to 10.5	8/26/2002	EKI	<2.5	<2.5	254	<2.5	<2.5	20.1	<1	4.70	13.7	<2.5	<0.1	<2.5	5.29	<2.5	<2.5	<2.5	16.3	24.6	NA	NA	NA	
A12	A12-10-10.5	10 to 10.5	8/28/2002	EKI	<2.5	<2.5	112	<2.5	<2.5	5.36	<1	10.6	43.2	<2.5	<0.1	<2.5	25.8	<2.5	<2.5	<2.5	17.9	17.4	NA	NA	NA	
A14	A14-5-5.5	5 to 5.5	8/27/2002	EKI	<2.5	<2.5	93.5	<2.5	<2.5	5.22	<1	4.24	7.55	6.34	<0.1	<2.5	3.92	<2.5	<2.5	<2.5	10.7	24.3	NA	NA	NA	
	A14-10-10.5	10 to 10.5	8/27/2002	EKI	<2.5	<2.5	135	<2.5	<2.5	5.53	<1	4.42	9.39	4.79	<0.1	<2.5	4.88	<2.5	<2.5	<2.5	18.6	27.0	NA	NA	NA	
C1	SS-C1-8	8	6/4/1997	DTSC	ND	ND	ND	ND	ND	8.20	NA	ND	ND	1.70	ND	ND	5.40	ND	ND	ND	ND	105	NA	NA	NA	
	SS-C1-20	20	6/4/1997	DTSC	ND	ND	ND	ND	ND	14.2	NA	ND	ND	2.90	ND	ND	9.50	ND	ND	ND	ND	50.6	NA	NA	NA	
	SS-C1-20 (Dup)	20	6/4/1997	DTSC	ND	ND	ND	ND	ND	12.8	NA	ND	ND	4.20	ND	ND	6.90	ND	ND	ND	ND	48.0	NA	NA	NA	
	SS-C1-40	40	6/4/1997	DTSC	ND	ND	ND	ND	ND	13.0	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
C2	SS-C2-06	0.5	6/4/1997	DTSC	ND	ND	ND	ND	ND	13.1	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
C3	SS-C3-06	0.5	6/4/1997	DTSC	ND	ND	ND	ND	ND	15.0	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-C3-3	3	6/4/1997	DTSC	ND	ND	ND	ND	ND	5.00	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
C4	SS-C4-06	0.5	7/23/1997	DTSC	ND	ND	ND	ND	ND	5.60	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-C4-5	5	7/23/1997	DTSC	ND	ND	ND	ND	ND	4.40	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-C4-10	10	7/23/1997	DTSC	ND	ND	ND	ND	ND	8.10	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-C4-15	15	7/23/1997	DTSC	ND	ND	ND	ND	ND	3.90	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-C4-20	20	7/23/1997	DTSC	ND	ND	ND	ND	ND	6.50	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-C4-25	25	7/23/1997	DTSC	ND	ND	ND	ND	ND	10.0	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
PMW-14	PMW14-24.5-25	24.5 to 25	9/26/2002	EKI	<2.5	<2.5	100	<2.5	<2.5	12.9	<1	3.54	8.06	<2.5	<0.1	<2.5	3.91	<2.5	<2.5	<2.5	12.3	17.6	NA	NA	NA	
	PMW14-39.5-40	39.5 to 40	9/26/2002	EKI	<2.5	<2.5	124	<2.5	<2.5	5.24	<1	5.42	12.5	<2.5	<0.1	<2.5	4.13	<2.5	<2.5	<2.5	14.2	22.0	NA	NA	NA	
PMW-16	PMW16-11-11.5	11 to 11.5	9/25/2002	EKI	<2.5	<2.5	210	<2.5	<2.5	9.71	<1	6.29	13.7	<2.5	<0.1	<2.5	6.85	<2.5	<2.5	<2.5	23.9	26.5	NA	NA	(3)	
PMW-17	PMW17-9.5-10	9.5 to 10	9/30/2002	EKI	<2.5	<2.5	123	<2.5	<2.5	25.6	1.64	4.44	40.3	7.57	<0.1	<2.5	5.34	<2.5	<2.5	<2.5	16.4	1,750	NA	NA	NA	
PMW-18	PMW18-4-4.5	4 to 4.5	9/24/2002	EKI	<2.5	<2.5	52.3	<2.5	<2.5	5.44	<1	<2.5	50.0	41.2	<0.1	<2.5	2.95	<2.5	<2.5	<2.5	8.74	38.2	NA	NA	NA	
	PMW18-20.5-21	20.5 to 21	9/24/2002	EKI	<2.5	<2.5	169	<2.5	<2.5	15.0	<1	5.34	14.8	<2.5	0.134	<2.5	5.55	<2.5	<2.5	<2.5	18.8	25.3	NA	NA	NA	
SB-12	SB-12-5.5-6.5	5.5 to 6.5	3/20/2002	EKI	<5	<5	74.0	<5	<5	<5	<2.5	<5	7.26	<5	<0.2	<5	<5	<5	<5	<5	12.1	16.7	NA	NA	NA	
	SB-12-10.5-11.5	10.5 to 11.5	3/20/2002	EKI	<5	<5	125	<5	<5	9.91	<2.5	5.10	10.9	12.3	<0.2	<5	5.7	<5	<5	<5	16.4	45.1	NA	NA	NA	
SB-13	SB-13-5.5-6.5	5.5 to 6.5	3/21/2002	EKI	<5	<5	165	<5	<5	5.75	<2.5	5.64	21.9	12.1	<0.2	<5	<5	<5	<5	<5	17.3	31.2	NA	NA	NA	
	SB-13-15.5-16.5	15.5 to 16.5	3/21/2002	EKI	<5	<5	133	<5	<5	9.94	<2.5	6.32	14.0	9.61	<0.2	<5	5.52	<5	<5	<5	16.5	29.0	NA	NA	NA	
SB-14	SB-14-5.5-6.5	5.5 to 6.5	3/21/2002	EKI	<5	<5	97.7	<5	<5	<5	<2.5	<5	15.1	8.84	<0.2	<5	<5	<5	<5	<5	9.03	23.2	NA	NA	NA	
	SB-14-15.5-16.5	15.5 to 16.5	3/21/2002	EKI	<5	<5	143	<5	<5	6.81	<2.5	5.82	15.0	<5	<0.2	<5	5.82	<5	<5	<5	17.2	27.1	NA	NA	NA	



**Table 10**  
**Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																			pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide			
Building A Area																										
SB-15	SB-15-5.5-6.5	5.5 to 6.5	3/21/2002	EKI	<5	<5	88.0	<5	<5	5.06	<2.5	<5	10.6	<5	<0.2	<5	<5	<5	<5	<5	<5	12.3	22.0	NA	NA	NA
	SB-15-10.5-11.5	10.5 to 11.5	3/21/2002	EKI	<5	<5	227	<5	<5	5.74	<2.5	6.93	15.8	<5	<0.2	<5	5.75	<5	<5	<5	<5	17.4	38.3	NA	NA	NA
SB-16	SB-16-5.5-6.5	5.5 to 6.5	3/21/2002	EKI	<5	<5	83.2	<5	<5	5.33	<2.5	9.27	10.7	<5	<0.2	<5	<5	<5	<5	<5	<5	12.2	26.7	NA	NA	NA
	SB-16-10.5-11.5	10.5 to 11.5	3/21/2002	EKI	<5	<5	145	<5	<5	<5	<2.5	6.20	15.6	<5	<0.2	<5	5.91	<5	<5	<5	<5	12.4	22.9	NA	NA	NA
Oil Staging Area																										
D2	SS-D2-8	8	6/5/1997	DTSC	ND	ND	ND	ND	ND	14.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-D2-18	18	6/5/1997	DTSC	ND	ND	ND	ND	ND	11.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-D2-18 (Dup)	18	6/5/1997	DTSC	ND	ND	ND	ND	ND	11.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-D2-40	40	6/5/1997	DTSC	ND	ND	ND	ND	ND	8.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
D3	SS-D3-8	8	6/5/1997	DTSC	ND	ND	ND	ND	ND	9.20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-D3-20	20	6/5/1997	DTSC	ND	ND	ND	ND	ND	10.4	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
	SS-D3-40	40	6/5/1997	DTSC	ND	ND	ND	ND	ND	8.80	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
PMW-11	PMW-11-2.5-3.5	2.5 to 3.5	7/10/2002	EKI	<2.5	<2.5	120	<2.5	<2.5	4.75	<1	3.50	7.48	<2.5	0.123	<2.5	3.16	<2.5	<2.5	<2.5	<2.5	8.09	15.5	NA	NA	(3)
	PMW-11-7-8	7 to 8	7/10/2002	EKI	<2.5	<2.5	200	<2.5	<2.5	4.53	<1	4.89	15.1	<2.5	0.139	<2.5	3.96	<2.5	<2.5	<2.5	<2.5	11.7	19.0	NA	NA	(3)
PMW-22	PMW22-4.5-5	4.5 to 5	11/20/2002	EKI	<2.5	<2.5	70.3	<2.5	<2.5	5.07	<2.50	3.38	453	71.4	<0.10	<2.5	8.98	<2.5	<2.5	<2.5	<2.5	10.2	358	NA	NA	NA
	PMW22-9.5-10	9.5 to 10	11/20/2002	EKI	<2.5	<2.5	170	<2.5	<2.5	8.04	<2.50	5.32	69.0	16.3	<0.10	<2.5	5.58	<2.5	<2.5	<2.5	<2.5	18.2	87.1	NA	NA	NA
	PMW22-19.5-20	19.5 to 20	11/20/2002	EKI	<2.5	<2.5	147	<2.5	<2.5	9.89	<2.50	4.88	11.0	<2.5	<0.10	<2.5	4.55	<2.5	<2.5	<2.5	<2.5	13.5	29.0	NA	NA	NA
PSVE-5	PSVE-5-3.5-4.5	3.5 to 4.5	7/9/2002	EKI	<2.5	<2.5	212	<2.5	<2.5	9.49	<1	6.17	22.7	3.72	0.109	<2.5	5.91	<2.5	<2.5	<2.5	<2.5	15.2	27.5	NA	NA	(3)
	PSVE-5-10.5-11.5	10.5 to 11.5	7/9/2002	EKI	<2.5	<2.5	124	<2.5	<2.5	2.94	<1	3.04	8.33	<2.5	0.125	<2.5	3.02	<2.5	<2.5	<2.5	<2.5	7.78	13.9	NA	NA	(3)
PSVE-6	PSVE-6-2.5-3.5	2.5 to 3.5	7/8/2002	EKI	<2.5	<2.5	95.6	<2.5	<2.5	3.05	<1	2.89	6.54	<2.5	<0.1	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	8.86	16.0	NA	NA	(3)
	PSVE-6-9-10	9 to 10	7/8/2002	EKI	<2.5	<2.5	88.5	<2.5	<2.5	8.30	<1	3.62	7.77	<2.5	<0.1	<2.5	3.01	<2.5	<2.5	<2.5	<2.5	9.05	16.0	NA	NA	(3)
PSVE-7	PSVE-7-2.5-3.5	2.5 to 3.5	7/8/2002	EKI	<2.5	<2.5	87.9	<2.5	<2.5	3.61	<1	<2.5	5.30	<2.5	<0.1	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	7.98	14.7	NA	NA	(3)
	PSVE-7-7.5-8.5	7.5 to 8.5	7/8/2002	EKI	<2.5	<2.5	115	<2.5	<2.5	6.84	<1	3.82	11.4	<2.5	<0.1	<2.5	6.48	<2.5	<2.5	<2.5	<2.5	11.1	15.8	NA	NA	(3)
SB-1	SB-01-9.5-10	9.5 to 10	4/11/2001	EKI	<10	1.40	160	<1	<1	15.0	<0.1	9.20	32.0	4.40	<0.1	<5	8.90	<1	<1	<1	<1	28.0	50.0	NA	NA	NA
	SB-01-14.5-15	14.5 to 15	4/11/2001	EKI	<10	1.60	140	<1	<1	8.80	<0.1	9.20	20.0	0.88	<0.1	<5	6.70	<1	<1	<1	<1	24.0	39.0	NA	NA	NA
SB-2	SB-02-9.5-10	9.5 to 10	4/11/2001	EKI	<10	1.60	87.0	<1	<1	6.20	<0.1	6.20	42.0	6.10	<0.1	<5	5.00	<1	<1	<1	<1	22.0	62.0	NA	NA	NA
	SB-02-14.5-15	14.5 to 15	4/11/2001	EKI	<10	1.70	87.0	<1	1.20	14.0	<0.1	5.80	920	110	<0.1	<5	15.0	<1	<1	<1	<1	20.0	560	NA	NA	NA
SB-11	SB-11-20-21	20 to 21	3/19/2002	EKI	<5	<5	157	<5	<5	18.7	<2.5	5.83	17.3	<5	<0.2	<5	6.34	<5	<5	<5	<5	18.1	31.6	NA	NA	NA
	SB-11-30-31	30 to 31	3/19/2002	EKI	<5	<5	163	<5	<5	10.4	<2.5	6.49	14.1	<5	<0.2	<5	7.73	<5	<5	<5	<5	20.2	32.9	NA	NA	NA
SVMW-201	VMW-1-5-6	5 to 6	3/19/2002	EKI	<5	<5	128	<5	<5	6.09	<2.5	5.15	16.1	<5	NA	<5	<5	<5	<5	<5	<5	12.6	46.0	NA	NA	NA
	VMW-1-10-11	10 to 11	3/19/2002	EKI	<5	<5	156	<5	<5	11.1	<2.5	6.31	14.6	16.9	<0.2	<5	6.39	<5	<5	<5	<5	22.2	38.3	NA	NA	NA
	VMW-1-20.5-21.5	20.5 to 21.5	3/19/2002	EKI	<5	<5	141	<5	<5	8.73	<2.5	5.59	15.3	11.6	<0.2	<5	6.42	<5	<5	<5	<5	17.7	30.5	NA	NA	NA
	VMW-1-30-31	30 to 31	3/19/2002	EKI	<5	<5	156	<5	<5	10.3	<2.5	5.85	13.1	<5	<0.2	<5	5.26	<5	<5	<5	<5	18.0	25.4	NA	NA	NA
SVMW-214	PVMW-14-2.5-3.5	2.5 to 3.5	7/9/2002	EKI	<2.5	<2.5	108	<2.5	<2.5	7.27	<1	4.54	230	44.0	<0.1	<2.5	11.7	<2.5	<2.5	<2.5	<2.5	16.5	194	NA	NA	(3)
	PVMW-14-7-8	7 to 8	7/9/2002	EKI	<2.5	<2.5	163	<2.5	<2.5	5.99	<1	4.40	17.6	3.94	0.152	<2.5	4.54	<2.5	<2.5	<2.5	<2.5	13.0	28.3	NA	NA	(3)



Table 10

**Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																			pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide			
Building L Area																										
L1	L1-0.25-0.75	0.25 to 0.75	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	1,090	246	NA	NA	NA	NA	NA	NA	NA	845	NA	NA	NA	
L2	L2-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	23.1	10.5	NA	NA	NA	NA	NA	NA	NA	41.6	NA	NA	NA	
L3	L3-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	20.8	10.7	NA	NA	NA	NA	NA	NA	NA	36.4	NA	NA	NA	
L4	L4-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	10.8	10.8	NA	NA	NA	NA	NA	NA	NA	35.4	NA	NA	NA	
L5	L5-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	5,280	558	NA	NA	NA	NA	NA	NA	NA	695	NA	NA	NA	
	L5-1.5-2	1.5 to 2	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	7.63	<2.5	NA	NA	NA	NA	NA	NA	NA	14.7	NA	NA	NA	
L6	L6-0.25-0.75	0.25 to 0.75	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	1,740	440	NA	NA	NA	NA	NA	NA	NA	1,850	NA	NA	NA	
L7	L7-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	59.5	26.1	NA	NA	NA	NA	NA	NA	NA	273	NA	NA	NA	
	L7-1.5-2	1.5 to 2	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	5.97	<2.5	NA	NA	NA	NA	NA	NA	NA	16.6	NA	NA	NA	
L8	L8-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	217	117	NA	NA	NA	NA	NA	NA	NA	672	NA	NA	NA	
L9	L9-0.25-0.75	0.25 to 0.75	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	3,880	507	NA	NA	NA	NA	NA	NA	NA	2,690	NA	NA	NA	
L10	L10-0.25-0.75	0.25 to 0.75	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	3,050	840	NA	NA	NA	NA	NA	NA	NA	3,450	NA	NA	NA	
	L10-1.5-2	1.5 to 2	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	6.25	<2.5	NA	NA	NA	NA	NA	NA	NA	14.0	NA	NA	NA	
L11	L11-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	920	358	NA	NA	NA	NA	NA	NA	NA	2,300	NA	NA	NA	
L12	L12-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	14.7	<2.5	NA	NA	NA	NA	NA	NA	NA	26.5	NA	NA	NA	
L13	L13-0.25-0.75	0.25 to 0.75	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	12.9	4.4	NA	NA	NA	NA	NA	NA	NA	35.7	NA	NA	NA	
L14	L14-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	417	318	NA	NA	NA	NA	NA	NA	NA	2,850	NA	NA	NA	
	L14-1.5-2	1.5 to 2	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	17.5	4.11	NA	NA	NA	NA	NA	NA	NA	2,450	NA	NA	NA	
L15	L15-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	434	318	NA	NA	NA	NA	NA	NA	NA	2,430	NA	NA	NA	
L16	L16-0.25-0.75	0.25 to 0.75	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	3,850	518	NA	NA	NA	NA	NA	NA	NA	1,680	NA	NA	NA	
L17	L17-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	4,050	1,000	NA	NA	NA	NA	NA	NA	NA	19,300	NA	NA	NA	
L18	L18-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	12.4	<2.5	NA	NA	NA	NA	NA	NA	NA	22.1	NA	NA	NA	
L19	L19-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	40.4	13.3	NA	NA	NA	NA	NA	NA	NA	81.7	NA	NA	NA	
	L19-1.5-2	1.5 to 2	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	6.51	<2.5	NA	NA	NA	NA	NA	NA	NA	15.4	NA	NA	NA	
L20	L20-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	284	381	NA	NA	NA	NA	NA	NA	NA	2,800	NA	NA	NA	
	L20-1.5-2	1.5 to 2	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	9.30	2.63	NA	NA	NA	NA	NA	NA	NA	23.3	NA	NA	NA	
L21	L21-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	555	396	NA	NA	NA	NA	NA	NA	NA	1,840	NA	NA	NA	
	L21-1.5-2	1.5 to 2	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	12.0	4.74	NA	NA	NA	NA	NA	NA	NA	35	NA	NA	NA	
L22	L22-0.25-0.75	0.25 to 0.75	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	997	810	NA	NA	NA	NA	NA	NA	NA	6,260	NA	NA	NA	
L23	L23-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	294	194	NA	NA	NA	NA	NA	NA	NA	1,190	NA	NA	NA	
L24	L24-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	12.6	9.14	NA	NA	NA	NA	NA	NA	NA	903	NA	NA	NA	
L25	L25-0.25-0.75	0.25 to 0.75	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	35.3	32.6	NA	NA	NA	NA	NA	NA	NA	89.2	NA	NA	NA	
	L25-1.5-2	1.5 to 2	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	6.78	<2.5	NA	NA	NA	NA	NA	NA	NA	16.2	NA	NA	NA	
L26	L26-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	174	166	NA	NA	NA	NA	NA	NA	NA	936	NA	NA	NA	
	L26-1.5-2	1.5 to 2	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	14.8	5.59	NA	NA	NA	NA	NA	NA	NA	39.4	NA	NA	NA	



Table 10

## Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																			pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide			
Building L Area																										
L27	L27-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	688	354	NA	NA	NA	NA	NA	NA	NA	1,820	NA	NA	NA	
	L27-1.5-2	1.5 to 2	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	15.1	2.87	NA	NA	NA	NA	NA	NA	NA	25.5	NA	NA	NA	
L28	L28-0.25-0.75	0.25 to 0.75	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	33.3	21.2	NA	NA	NA	NA	NA	NA	NA	123	NA	NA	NA	
L29	L29-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	12.8	2.67	NA	NA	NA	NA	NA	NA	NA	26.5	NA	NA	NA	
L30	L30-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	2,520	798	NA	NA	NA	NA	NA	NA	NA	5,730	NA	NA	NA	
L31	L31-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	13.1	<2.5	NA	NA	NA	NA	NA	NA	NA	46.1	NA	NA	NA	
L32	L32-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	6,900	1,310	NA	NA	NA	NA	NA	NA	NA	9,760	NA	NA	NA	
L33	L33-0.5-1	0.5 to 1	7/24/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	22.8	12.9	NA	NA	NA	NA	NA	NA	NA	39.8	NA	NA	NA	
L34	L34-0.5-1	0.5 to 1	7/25/2002	EKI	NA	NA	NA	NA	NA	NA	NA	NA	18.4	3.43	NA	NA	NA	NA	NA	NA	NA	40.3	NA	NA	NA	
PMW-12	PMW-12-2-3	2 to 3	6/24/2002	EKI	<2.5	<2.5	172	<2.5	<2.5	9.85	<1	7.02	21.8	<2.5	<0.02	<2.5	6.21	<2.5	<2.5	<2.5	20.8	23.1	NA	NA	(3)	
	PMW-12-8.5-9.5	8.5 to 9.5	6/24/2002	EKI	<2.5	<2.5	142	<2.5	<2.5	15.5	<1	4.28	13.4	2.95	<0.02	<2.5	5.37	<2.5	<2.5	<2.5	14.8	34.9	NA	NA	(3)	
SB-3	SB-03-4.5-5	4.5 to 5	4/11/2001	EKI	<10	1.10	92.0	<1	<1	6.70	NA	27.0	29.0	6.90	<0.1	<5	4.50	<1	<1	<1	16.0	87.0	NA	NA	NA	
	SB-03-9.5-10	9.5 to 10	4/11/2001	EKI	<10	1.40	140	<1	<1	7.80	NA	6.50	16.0	1.30	<0.1	<5	5.10	<1	<1	<1	18.0	26.0	NA	NA	NA	
SB-4	SB-04-4.5-5	4.5 to 5	4/11/2001	EKI	<10	1.60	160	<1	1.20	9.80	NA	8.20	320	91.0	<0.1	<5	21.0	<1	<1	<1	22.0	800	NA	NA	NA	
	SB-04-9.5-10	9.5 to 10	4/11/2001	EKI	<10	1.60	160	<1	<1	11.0	NA	7.70	78.0	18.0	<0.1	<5	10.0	<1	<1	<1	19.0	200	NA	NA	NA	
SVMW-213	PVMW-13-2-3	2 to 3	7/16/2002	EKI	<2.5	<2.5	151	<2.5	<2.5	12.5	2.24	5.39	27.3	10.9	<0.1	<2.5	6.50	<2.5	<2.5	<2.5	26.3	113	NA	NA	(3)	
	PVMW-13-8.5-9.5	8.5 to 9.5	7/16/2002	EKI	<2.5	<2.5	200	<2.5	<2.5	32.4	<2	6.18	13.1	2.91	<0.1	<2.5	7.13	<2.5	<2.5	<2.5	22.0	41.7	NA	NA	(3)	
T-2	T-2U	0.5 to 1	3/19/2002	EKI	<5.0	10.0	109	<5.0	13.9	11.0	NA	9.15	18,200	6,200	<0.02	<5	65.4	<5.0	6.77	<5.0	10.3	56,900	NA	NA	NA	
	T-2L	1.5 to 2	3/19/2002	EKI	<5.0	<5.0	66.9	<5.0	<5.0	<5.0	NA	<5.0	24.4	8.50	<0.02	<5	<5.0	<5.0	<5.0	<5.0	7.54	59.2	NA	NA	NA	
T-3	T-3U	0.5 to 1	3/19/2002	EKI	<5.0	<5.0	68.4	<5.0	6.78	23.6	<2.5	<5.0	9,840	1,860	<0.20	<5.0	56.3	<5.0	<5.0	<5.0	11.7	12,500	NA	NA	NA	
	T-3L	1.5 to 2	3/19/2002	EKI	<5.0	<5.0	116	<5.0	<5.0	5.89	<2.5	6.25	22.5	10.8	<0.20	<5.0	<5.0	<5.0	<5.0	<5.0	13.6	47.6	NA	NA	NA	
T-5	T-5U	0.5 to 1	3/19/2002	EKI	<5.0	5.57	68.2	<5.0	8.38	21.9	NA	<5.0	16,100	3,090	<0.02	<5.0	63.4	<5.0	5.64	<5.0	10.1	23,400	NA	NA	NA	
	T-5L	1.5 to 2	3/19/2002	EKI	<5.0	<5.0	92.5	<5.0	<5.0	5.27	NA	<5.0	12.0	<5.0	<0.02	<5	<5.0	<5.0	<5.0	<5.0	11.2	18.5	NA	NA	NA	
T-7	T-7U	0.5 to 1	3/19/2002	EKI	<5.0	<5.0	183	<5.0	<5.0	12.4	NA	6.88	23.2	25.6	<0.02	<5	8.47	<5.0	<5.0	<5.0	16.7	92.1	NA	NA	NA	
	T-7L	1.5 to 2	3/19/2002	EKI	<5.0	<5.0	55.6	<5.0	<5.0	<5.0	NA	<5.0	8.50	<5.0	<0.02	<5	<5.0	<5.0	<5.0	<5.0	7.19	13.3	NA	NA	NA	
T-8	T-8U	0.5 to 1	3/19/2002	EKI	<5.0	<5.0	238	<5.0	<5.0	14.2	<2.5	10.2	91.3	31.3	<0.20	<5.0	15.3	<5.0	<5.0	<5.0	22.9	231	NA	NA	NA	
	T-8L	1.5 to 2	3/19/2002	EKI	<5.0	<5.0	93.7	<5.0	<5.0	<5.0	<2.5	<5.0	10.0	<5.0	<0.20	<5.0	<5.0	<5.0	<5.0	<5.0	10.1	34.9	NA	NA	NA	



Table 10

## Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Date	Data Collected By	Inorganic Compounds (mg/kg) (1)																			pH (2)	Percent Moisture (% wt)	
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide			
Other Site Locations																										
A1	SS-A1-06	0.5	6/3/1997	DTSC	ND	ND	ND	ND	ND	9.40	ND	ND	16.0	5.50	ND	ND	7.10	ND	ND	ND	ND	48.4	NA	NA	NA	
	SS-A1-3	3	6/3/1997	DTSC	ND	ND	ND	ND	ND	9.00	ND	ND	25.5	0.83	ND	ND	5.70	ND	ND	ND	ND	32.4	NA	NA	NA	
	SS-A1-10	10	6/3/1997	DTSC	ND	ND	ND	ND	ND	7.30	ND	ND	46.6	3.40	ND	ND	9.10	ND	ND	ND	ND	43.3	NA	NA	NA	
	SS-A1-15	15	6/3/1997	DTSC	ND	ND	ND	ND	ND	12.9	ND	ND	25.9	1.00	ND	ND	7.70	ND	ND	ND	ND	45.0	NA	NA	NA	
	SS-A1-40	40	6/3/1997	DTSC	ND	ND	ND	ND	ND	8.90	ND	ND	28.4	0.83	ND	ND	6.60	ND	ND	ND	ND	32.7	NA	NA	NA	
B1	SS-B1-8	8	6/5/1997	DTSC	ND	ND	ND	ND	ND	12.7	ND	ND	ND	1.00	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-B1-20	20	6/5/1997	DTSC	ND	ND	ND	ND	ND	4.20	ND	ND	ND	1.50	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-B1-20 (Dup)	20	6/5/1997	DTSC	ND	ND	ND	ND	ND	4.90	ND	ND	ND	1.00	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
	SS-B1-40	40	6/5/1997	DTSC	ND	ND	ND	ND	ND	8.80	ND	ND	ND	0.760	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	
PMW-9	PMW-9-2-3	2 to 3	7/10/2002	EKI	<2.5	<2.5	114	<2.5	<2.5	3.28	<1	3.06	9.16	<2.5	<0.1	<2.5	<2.5	<2.5	<2.5	<2.5	11.0	22.0	NA	NA	(3)	
	PMW-9-7-8	7 to 8	7/10/2002	EKI	<2.5	5.36	87.5	<2.5	<2.5	5.87	<1	4.09	11.9	<2.5	0.126	<2.5	4.06	<2.5	<2.5	<2.5	11.0	49.8	NA	NA	(3)	
PMW-10	PMW-10-2.5-3.5	2.5 to 3.5	7/15/2002	EKI	<2.5	<2.5	73.0	<2.5	<2.5	2.96	<2	2.87	5.82	<2.5	<0.1	<2.5	2.51	<2.5	<2.5	<2.5	8.21	13.1	NA	NA	(3)	
	PMW-10-7-8	7 to 8	7/15/2002	EKI	<2.5	<2.5	67.2	<2.5	<2.5	5.41	<2	2.90	12.5	12.6	<0.1	<2.5	3.96	<2.5	<2.5	<2.5	12.9	29.4	NA	NA	(3)	
PMW-13	PMW-13-2-3	2 to 3	7/11/2002	EKI	<2.5	<2.5	116	<2.5	<2.5	5.73	<1	3.79	7.80	3.04	<0.1	<2.5	4.38	<2.5	<2.5	<2.5	10.8	18.7	NA	NA	(3)	
	PMW-13-7.5-8.5	7.5 to 8.5	7/11/2002	EKI	<2.5	<2.5	73.3	<2.5	<2.5	3.13	<1	2.69	5.93	<2.5	<0.1	<2.5	<2.5	<2.5	<2.5	<2.5	9.33	15.2	NA	NA	(3)	
PMW-15	PMW-15-2-3	2 to 3	7/15/2002	EKI	<2.5	<2.5	83.9	<2.5	<2.5	5.94	<2	3.54	7.32	<2.5	<0.1	<2.5	2.74	<2.5	<2.5	<2.5	8.95	19.1	NA	NA	(3)	
	PMW-15-7-8	7 to 8	7/15/2002	EKI	<2.5	<2.5	119	<2.5	<2.5	5.70	<2	4.30	10.8	8.34	<0.1	<2.5	4.93	<2.5	<2.5	<2.5	12.3	35.7	NA	NA	(3)	
SB-5	SB-05-4.5-5	4.5 to 5	4/11/2001	EKI	<10	1.10	87.0	<1	<1	5.80	NA	5.00	11.0	0.69	<0.1	<5	3.80	<1	<1	<1	15.0	25.0	NA	NA	NA	
	SB-05-9.5-10	9.5 to 10	4/11/2001	EKI	<10	1.10	94.0	<1	<1	10.0	NA	6.60	330	22.0	<0.1	<5	8.50	<1	<1	<1	21.0	300	NA	NA	NA	
SB-10	SB-10-10-10.5	10 to 10.5	4/10/2001	EKI	<10	1.20	130	<1	<1	9.60	<0.1	7.40	13.0	1.50	<0.1	<5	5.00	<1	<1	<1	18.0	30.0	NA	NA	NA	
	SB-10-19.5-20	19.5 to 20	4/10/2001	EKI	<10	2.60	240	<1	10.0	11.0	NA	24.0	1.80	<0.5	<0.1	<5	7.10	<1	<1	<1	28.0	40.0	NA	NA	NA	
SVMW-203	PVMW-3-2-3	2 to 3	7/16/2002	EKI	<2.5	<2.5	94.0	<2.5	<2.5	7.71	<2	3.62	6.96	<2.5	<0.1	<2.5	3.47	<2.5	<2.5	<2.5	12.6	16.0	NA	NA	(3)	
	PVMW-3-7-8	7 to 8	7/16/2002	EKI	<2.5	<2.5	129	<2.5	<2.5	7.04	<2	4.86	13.0	3.94	<0.1	<2.5	4.66	<2.5	<2.5	<2.5	14.5	29.6	NA	NA	(3)	
SVMW-204	PVMW-4-2.5-3.5	2.5 to 3.5	7/17/2002	EKI	<2.5	<2.5	125	<2.5	<2.5	7.66	<2	6.05	10.0	16.6	<0.1	<2.5	5.66	<2.5	<2.5	<2.5	14.7	28.1	NA	NA	(3)	
	PVMW-4-7-8	7 to 8	7/17/2002	EKI	<2.5	<2.5	134	<2.5	<2.5	7.65	<2	4.61	10.6	18.2	<0.1	<2.5	6.03	<2.5	<2.5	<2.5	14.4	32.4	NA	NA	(3)	
SVMW-206	PVMW-6-2.5-3.5	2.5 to 3.5	7/16/2002	EKI	<2.5	<2.5	115	<2.5	<2.5	9.94	<2	4.62	56.7	12.7	<0.1	<2.5	6.67	<2.5	<2.5	<2.5	15.3	222	NA	NA	(3)	
	PVMW-6-7-8	7 to 8	7/16/2002	EKI	<2.5	<2.5	74.1	<2.5	<2.5	3.77	<2	4.02	6.56	<2.5	<0.1	<2.5	<2.5	<2.5	<2.5	<2.5	10.1	16.0	NA	NA	(3)	
SVMW-212	PVMW-12-1-2	1 to 2	7/2/2002	EKI	<2.5	<2.5	115	<2.5	<2.5	6.98	<1	3.99	12.1	<2.5	<0.1	<2.5	4.35	<2.5	<2.5	<2.5	10.2	17.9	NA	8.69	(3)	
	PVMW-12-7.5-8.5	7.5 to 8.5	7/2/2002	EKI	<2.5	<2.5	90.9	<2.5	<2.5	6.29	<1	3.61	16.5	3.30	<0.1	<2.5	3.66	<2.5	<2.5	<2.5	8.89	30.4	NA	8.68	(3)	



**Table 10**

***Summary of Inorganic Analytical Results and Selected Physical Parameter Test Results for Soil Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

bgs	below ground or floor surface
DTSC	California Department of Toxic Substances Control
Dup	Duplicate or sequential sample
EKI	Erler & Kalinowski, Inc.
mg/kg	milligrams per kilogram
NA	Sample was not tested for this analyte, or the result is not available.
ND	Analyte was not detected above the analytical method reporting limit. Reporting limit unknown.
%wt	$=((\text{wet weight} - \text{dry weight})/\text{dry weight}) \times 100$

**Notes**

- (1) Data collected before 2002 were analyzed for total metals using EPA 6000 series methods. Samples collected in March, June, and July 2002 were analyzed for seventeen metals by ICP/MS using EPA Method 3050/6020 and in some cases hexavalent chromium by EPA Method 7196/200.8 and total cyanide using EPA Method 9010. Analytes not shown, antimony, beryllium, and thallium, were not detected at laboratory reporting limits.
- (2) pH measurements were made using EPA Method 9045.
- (3) Moisture content results collected at this location are listed in Table 13.



**Table 11**  
**Summary of SVOC Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area		Depth	Sample	Analytical	SVOCs (mg/kg)		
Location	Sample Name	(feet, bgs)	Date	Method	Chrysene	Phenanthrene	Pyrene
Central Building P Area							
SB-7	SB-07-4.5-5	4.5 to 5	4/10/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
SB-8	SB-08-9.5-10	9.5 to 10	4/10/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
SB-9	SB-09-9-9.5	9 to 9.5	4/10/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
Building A Area							
C1	SS-C1-8	8	6/4/1997	EPA 8270 (1)	ND	ND	ND
	SS-C1-8 (Dup)	8	6/4/1997	EPA 8270 (1)	ND	ND	ND
	SS-C1-20	20	6/4/1997	EPA 8270 (1)	ND	ND	ND
	SS-C1-20 (Dup)	20	6/4/1997	EPA 8270 (1)	ND	ND	ND
		40	6/4/1997	EPA 8270 (1)	ND	ND	ND
C2	SS-C2-06	0.5	6/4/1997	EPA 8270 (1)	ND	ND	ND
	SS-C2-06 (Dup)	0.5	6/4/1997	EPA 8270 (1)	ND	ND	ND
C3	SS-C3-06	0.5	6/4/1997	EPA 8270 (1)	ND	ND	ND
	SS-C3-06 (Dup)	0.5	6/4/1997	EPA 8270 (1)	ND	ND	ND
	SS-C3-3	3	6/4/1997	EPA 8270 (1)	ND	ND	ND
C4	SS-C4-06	0.5	7/23/1997	EPA 8270 (1)	ND	ND	ND
	SS-C4-06 (Dup)	0.5	7/23/1997	EPA 8270 (1)	ND	ND	ND
	SS-C4-5 (Dup)	5	7/23/1997	EPA 8270 (1)	ND	ND	ND
	SS-C4-10	10	7/23/1997	EPA 8270 (1)	ND	ND	ND
	SS-C4-15	15	7/23/1997	EPA 8270 (1)	ND	ND	ND
Oil Staging Area							
Boring B/2	2-10	10	10/30/1985	EPA 8270 (1)	ND	ND	ND
	2-20	20	10/30/1985	EPA 8270 (1)	ND	ND	ND
	2-30	30	10/30/1985	EPA 8270 (1)	ND	ND	ND
	2-40	40	10/30/1985	EPA 8270 (1)	ND	ND	ND
	2-50	50	10/30/1985	EPA 8270 (1)	ND	ND	ND
	2-55	55	10/30/1985	EPA 8270 (1)	ND	ND	ND



**Table 11**  
**Summary of SVOC Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area		Depth	Sample	Analytical	SVOCs (mg/kg)		
Location	Sample Name	(feet, bgs)	Date	Method	Chrysene	Phenanthrene	Pyrene
Oil Staging Area							
D2	SS-D2-8 (Dup)	8	6/5/1997	EPA 8270 (1)	ND	ND	ND
D3	SS-D3-8 (Dup)	8	6/5/1997	EPA 8270 (1)	ND	ND	ND
SB-1	SB-01-9.5-10	9.5 to 10	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
	SB-01-14.5-15	14.5 to 15	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
SB-2	SB-02-9.5-10	9.5 to 10	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
	SB-02-14.5-15	14.5 to 15	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
Building L Area							
L11	L11-0.5-1	0.5 to 1	7/25/2002	EPA 8270 (2)	<0.05	<0.05	<0.05
L14	L14-0.5-1	0.5 to 1	7/25/2002	EPA 8270 (2)	<0.05	<0.05	<0.05
L15	L15-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	<0.05
L20	L20-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	0.0693	0.0999	0.0973
L21	L21-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	0.0544	0.0544
L26	L26-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	<0.05
L27	L27-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	0.0561
L30	L30-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	0.0834
L31	L31-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	<0.05
L32	L32-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	0.0653
L33	L33-0.5-1	0.5 to 1	7/24/2002	EPA 8270 (2)	<0.05	<0.05	<0.05
SB-3	SB-03-4.5-5	4.5 to 5	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
SB-4	SB-04-4.5-5	4.5 to 5	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
T-3	T-3U	0.5 to 1	3/19/2002	EPA 8270 (1)	<0.33	<0.33	<0.33
	T-3L	1.5 to 2	3/19/2002	EPA 8270 (1)	<0.33	<0.33	<0.33
T-8	T-8U	0.5 to 1	3/19/2002	EPA 8270 (1)	<1.65	<1.65	<1.65
	T-8L	1.5 to 2	3/19/2002	EPA 8270 (1)	<0.33	<0.33	<0.33



**Table 11**  
**Summary of SVOC Analytical Results for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area		Depth	Sample	Analytical	SVOCs (mg/kg)		
Location	Sample Name	(feet, bgs)	Date	Method	Chrysene	Phenanthrene	Pyrene
Other Site Locations							
A1	SS-A1-06	0.5	6/3/1997	EPA 8270 (1)	ND	ND	ND
	SS-A1-3	3	6/3/1997	EPA 8270 (1)	ND	ND	ND
	SS-A1-10	10	6/3/1997	EPA 8270 (1)	ND	ND	ND
	SS-A1-15	15	6/3/1997	EPA 8270 (1)	ND	ND	ND
	SS-A1-40	40	6/3/1997	EPA 8270 (1)	ND	ND	ND
SB-5	SB-05-4.5-5	4.5 to 5	4/11/2001	EPA 8270 (1)	<0.2	<0.2	<0.2
SB-10	SB-10-10-10.5	10 to 10.5	4/10/2001	EPA 8270 (1)	<0.2	<0.2	<0.2

**Abbreviations**

bgs     below ground or floor surface  
Dup     duplicate or sequential sample  
mg/kg   milligrams per kilogram  
ND     Analyte was not detected above the analytical method reporting limit. Reporting limit unknown.  
SVOC   Semi-volatile organic compound

**Notes**

- (1) These samples were analyzed for SVOCs using EPA Method 8270. Only detected SVOCs are shown.
- (2) These samples were analyzed for polycyclic aromatic hydrocarbons ("PAHs") only using EPA Method 8270. Only detected PAHs are shown.



**Table 12**  
**Summary of PCB Analytical Results for Soil and Concrete Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Sampling Matrix	Depth (feet, bgs)	Sample Date	Analytical Method	PCBs (mg/kg)
<b>Building A Area</b>						
A15	A15-C	concrete	0.0	12/4/2002	EPA 8082	<0.500
	A15-0.5	soil	0.5	12/4/2002	EPA 8082	<0.500
A16	A16-C	concrete	0.0	12/4/2002	EPA 8082	<0.500
	A16-1.0	soil	1.0	12/4/2002	EPA 8082	<0.500
A17	A17-C	concrete	0.0	12/4/2002	EPA 8082	<0.500
	A17-0.5	soil	0.5	12/4/2002	EPA 8082	<0.500
A18	A18-C	concrete	0.0	12/4/2002	EPA 8082	<0.500
	A18-0.5	soil	0.5	12/4/2002	EPA 8082	<0.500
A19	A19-C	concrete	0.0	12/4/2002	EPA 8082	<0.500
	A19-0.5	soil	0.5	12/4/2002	EPA 8082	<0.500

**Abbreviations**

bgs    below ground or floor surface  
mg/kg    milligrams per kilogram  
PCBs    Polychlorinated biphenyls



**Table 13**  
**Summary of Physical Properties Data and Total Organic Carbon for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Sample Date	Moisture Content (% wt)	Density		Porosity (%Vb )		-200 (%)	Total Organic Carbon (mg/Kg)
					Bulk (g/cc)	Grain (g/cc)	Effective (1)	Air Filled (2)		
Central Building P Area										
PSVE-1	PSVE-1-11-12	11 - 12	6/26/2002	2.9	1.89	2.78	32	26.4	10.14	1,800
PSVE-2	PSVE-2-10.5-11.5	10.5 - 11.5	6/25/2002	2.6	1.91	2.8	31.8	27.3	6.92	<100
	PSVE-2-45-46.5	45 - 46.5	6/25/2002	3.5	1.86	2.78	33.3	27.2	9.99	<100
PSVE-3	PSVE-3-9-11.5	9 - 11.5	6/26/2002	2.9	1.83	2.83	35.3	29.8	14.36	780
PSVE-4	PSVE-4-9-10	9 - 10	6/25/2002	2.7	1.95	2.84	31.3	26.6	13.75	<100
SVMW-205	SVMW-205-9-11	9 - 11	7/17/2002	2.3	2.0	3.05	34.4	29.7	3.94	<100
SVMW-207	SVMW-207-20.5-22	2.5 - 22	6/28/2002	3.3	1.84	2.8	34.4	28	12.82	470
SVMW-208	SVMW-208-9.5-10.5	9.5 - 10.5	6/28/2002	2.3	1.92	2.79	31.3	26.7	15.76	1,200
SVMW-209	SVMW-209-16.5-17.5	16.5 - 17.5	6/27/2002	4.4	1.8	2.86	37.2	29.3	50.01	1,100
	SVMW-209-30.5-31.5	30.5 - 31.5	7/1/2002	3.4	1.73	2.74	36.8	31	9.63	700
	SVMW-209-50.5-51.5	50.5 - 51.5	7/1/2002	9.6	1.84	2.83	34.8	17.1	10.21	460
SVMW-210	SVMW-210-9.5-10.5	9.5 - 10.5	6/27/2002	3.2	1.97	2.9	32.1	25.6	8.58	410
SVMW-211	SVMW-211-16-17	16 - 17	7/1/2002	4.7	1.67	2.8	40.4	32.6	19.46	740
Building A Area										
PMW-16	PMW-16-10-11	10-11	9/25/2002	5.6	1.62	--	41.71	32.71	5.31	1,200
	PMW-16-25.5-26.5	25.5-26.5	9/25/2002	5.1	1.72	--	37.71	28.23	7.22	9,900
	PMW-16-45.5-46.5	45.5-46.5	9/25/2002	3.1	1.79	--	35.13	29.41	8.01	1,950
Oil Staging Area										
PMW-11	PMW-11-8.5-9.5	8.5 - 9.5	7/10/2002	4.8	1.82	2.85	36.1	27.5	14.55	710
	PMW-11-32-33.5	32 - 33.5	7/10/2002	6.9	1.85	2.81	34.2	21.6	19.95	720
	PMW-11-50-51	50 - 51	7/10/2002	3.5	1.81	2.8	35.1	29	11.48	1,000
PSVE-5	PSVE-5-12-13	12 - 13	7/9/2002	3.9	1.79	2.82	36.6	29.7	9.81	1,100
PSVE-6	PSVE-6-10.5-11.5	10.5 - 11.5	7/8/2002	4.2	1.59	2.84	44.1	37.4	7.02	1,300
PSVE-7	PSVE-7-15.5-17	15.5 - 17	7/8/2002	3.1	1.66	2.71	38.8	33.6	17.05	1,000
SVMW-214	SVMW-214-9.5-11	9.5 - 11	7/9/2002	4.3	1.83	2.79	34.3	26.4	16.06	1,400



**Table 13**  
**Summary of Physical Properties Data and Total Organic Carbon for Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Sample Name	Depth (feet, bgs)	Sample Date	Moisture Content (% wt)	Density		Porosity (%Vb )		-200 (%)	Total Organic Carbon (mg/Kg)
					Bulk (g/cc)	Grain (g/cc)	Effective (1)	Air Filled (2)		
Building L Area										
PMW-12	PMW-12-9.5-10.5	9.5 - 10.5	6/24/2002	3.8	1.88	2.89	34.9	28.2	13.07	<100
SVMW-213	SVMW-213-10-15	10 - 15	7/16/2002	3.5	1.79	2.78	35.4	29.1	11.21	780
	SVMW-213-30-32	30 - 32	7/16/2002	4.9	1.81	2.82	36	25.8	12.90	560
	SVMW-213-48.5-49.5	48.5 - 49.5	7/16/2002	3.4	1.82	2.85	36.1	30.3	11.85	720
Other Site Locations										
PMW-9	PMW-9-15-16	15 - 16	7/11/2002	4.6	1.84	2.8	34.4	25.9	6.96	500
PMW-10	PMW-10-8.5-10.5	8.5 - 10.5	7/15/2002	3.6	1.76	2.72	35.5	29.1	14.2	2,700
PMW-13	PMW-13-9-10	9 - 10	7/11/2002	4.3	1.91	2.92	34.7	26.6	6.29	950
	PMW-13-30-31	30 - 31	7/11/2002	4.1	1.83	2.78	34.1	26.4	10.48	460
	PMW-13-50-51	50 - 51	7/11/2002	4.9	1.87	2.83	33.8	24.6	6.30	590
	PMW-13-65-66	65 - 66	7/11/2002	3.6	1.96	2.89	32.2	25	9.69	690
PMW-15	PMW-15-9-11	9 - 11	7/15/2002	3.1	1.74	2.75	36.5	31.2	15.06	760
	PMW-15-30-31	30 - 31	7/15/2002	3.2	1.74	2.78	37.3	31.7	13.85	500
	PMW-15-60-61	60 - 61	7/15/2002	4.4	1.8	2.84	36.5	28.5	14.06	400
SVMW-203	SVMW-203-9-11	9 - 11	7/16/2002	4.0	1.87	2.91	35.7	28.1	11.51	1,200
SVMW-204	SVMW-204-10-11	10 - 11	7/17/2002	3.8	1.87	2.79	33	25.6	9.74	2,000
	SVMW-204-26.5-27.5	26.5 - 27.5	7/17/2002	4.0	1.9	2.8	32.4	24.7	10.37	<100
	SVMW-204-54-55	54 - 55	7/17/2002	4.4	1.87	2.84	34.1	25.6	8.41	<100
SVMW-206	SVMW-206-8.5-9.5	8.5 - 9.5	7/16/2002	2.7	1.81	2.78	35	30.1	11.20	1,600
	SVMW-206-25-26	25 - 26	7/16/2002	3.7	1.76	2.78	36.8	30.4	17.12	410
	SVMW-206-40-41	40 - 41	7/16/2002	6.3	1.83	2.84	35.7	23.9	11.78	640
SVMW-212	SVMW-212-9-10.5	9 - 10.5	7/2/2002	3.8	1.75	2.78	44.6	38.2	17.04	520



**Table 13**  
***Summary of Physical Properties Data and Total Organic Carbon for Soil Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

bgs	below ground or floor surface
Vb	Bulk volume
Pv	Pore volume
%wt	$=((\text{wet weight} - \text{dry weight})/\text{dry weight}) \times 100$
g/cc	grams per cubic centimeter
mg/Kg	milligram per kilogram
<100	not detected above the laboratory reporting limit stated
-200	particle size analysis, weight percent passing #200 sieve
--	not analyzed

**Notes**

- (1) Effective porosity is a measure of the volume of air and water filled pores in the soil sample.
- (2) Air filled porosity is a measure of the pore space volume not occupied by fluids.



**Table 14**  
**Summary of Selected VOC Analytical Results for Active Soil Gas Survey (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)																Other VOCs (3)
				Primary VOCs						Secondary VOCs										
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	m/p-xylenes	o-xylene		
Central Building P Area																				
SG-45	5	3/7/2002	IP (4)	580	5.9	8.2	<1.0	24	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.1	
SG-46	5	3/7/2002	IP	380	170	9.2	<1.0	19	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.0	
SG-54	5	3/5/2002	IP	250	15	4.5	<1.0	14	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.3	
SG-55	5	3/5/2002	IP	67	2.8	12	<1.0	3.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.2	
		3/5/2002	CS	160	8.7	32	0.32	19	1.3	<0.13	<0.12	0.21	<0.18	<0.10	<0.12	<0.14	<0.28	<0.14		
SG-56	5	3/5/2002	IP	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-57	5	3/6/2002	IP	340	17	5.4	<1.0	13	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.7	
		3/6/2002	IP	340	17	5.2	<1.0	12	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.5	
SG-58	5	3/5/2002	IP	1,000	57	6.5	<1.0	35	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 4.8	
SG-59	5	3/5/2002	IP	1,600	49	6.5	<1.0	21	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.4	
	10	3/5/2002	IP	1,800	51	7.2	<5.0	20	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
SG-60	5	3/5/2002	IP	810	79	7.5	<1.0	27	<1.0	1.1	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.2	
SG-61	5	3/6/2002	IP	320	17	4.0	<1.0	15	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.0	
	10	3/6/2002	IP	270	18	3.9	<1.0	17	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.9	
SG-62	5	3/7/2002	IP	330	35	4.3	<1.0	30	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.6	
SG-63	5	3/5/2002	IP	230	32	2.4	<1.0	20	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.6	
	10	3/5/2002	IP	230	44	3.0	<1.0	29	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.6	
SG-68	5	3/7/2002	IP	240	9.7	4.7	<1.0	9.7	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/7/2002	CS	220	27	13	<1.4	48	<1.5	<1.5	<1.4	<1.8	<2.0	<1.2	<1.4	<1.6	4.3	<1.6		
SG-83	5	3/26/2002	IP	940 J (5)	75	7.0	<1.0	27	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.4	
SG-84	5	3/26/2002	IP	360	110	6.8	<1.0	13	<1.0	1.4	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-85	5	3/26/2002	IP	390	108	2.8	<1.0	12	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.6	
SG-86	5	3/26/2002	IP	230	11	2.7	<1.0	8.3	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-87	5	3/26/2002	IP	490	12	3.6	<1.0	7.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.7	
SG-88	5	3/26/2002	IP	150	11	2.8	<1.0	8.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



**Table 14**  
**Summary of Selected VOC Analytical Results for Active Soil Gas Survey (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)																Other VOCs (3)
				Primary VOCs							Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	m/p-xylenes	o-xylene		
Building A Area																				
SG-12	5	3/6/2002	IP	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-20	5	3/7/2002	IP	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/7/2002	CE	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	15	3/7/2002	IP	3.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-23	5	3/7/2002	IP	5.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	15	3/7/2002	CE	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-24	5	3/6/2002	IP	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-25	5	3/6/2002	IP	9.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-26	5	3/6/2002	IP	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-27	5	3/7/2002	IP	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	15	3/7/2002	IP	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-28	5	3/8/2002	IP	4.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-29	5	3/8/2002	IP	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-64	5	3/6/2002	IP	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-65	5	3/6/2002	IP	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/6/2002	CS	3.3	0.18	<0.15	<0.11	<0.11	<0.12	<0.22	<0.11	<0.14	<0.16	<0.091	<0.11	<0.12	<0.25	<0.12		
SG-77	5	3/8/2002	IP	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-31	5	3/8/2002	IP	67	16	2.7	<1.0	25	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.0	
		3/8/2002	IP	69	17	3.0	<1.0	24	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.4	
SG-32	5	3/4/2002	IP	100	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 0.045; 1,2,4-trimethylbenzene = 0.064; hexachloro-1,3-butadiene = 0.087	
		3/4/2002	CS	200	2.5	2.5	<0.031	0.87	<0.031	<0.031	<0.030	<0.038	<0.044	<0.025	0.034	<0.0034	0.087	<0.034		
SG-33	5	3/4/2002	IP	30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-34	5	3/4/2002	IP	150	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



**Table 14**  
**Summary of Selected VOC Analytical Results for Active Soil Gas Survey (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)																Other VOCs (3)
				Primary VOCs							Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	m/p-xylenes	o-xylene		
Oil Staging Area																				
SG-35	5	3/5/2002	IP	370	1.7	5.8	<1.0	1.3	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.4	
		3/5/2002	IP	390	1.7	5.8	<1.0	1.3	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.1	
SG-36	5	3/5/2002	IP	450	<1.0	4.7	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	12	3/5/2002	IP	890	<1.0	10	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-37	5	3/8/2002	IP	100	<1.0	4.5	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-38	5	3/4/2002	IP	39	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-66	5	3/7/2002	IP	105	<1.0	10	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	5	3/7/2002	IP	92	<1.0	9.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	15	3/7/2002	CE	1,300	<1.0	73	5.8	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-67	5	3/7/2002	IP	140	<1.0	5.6	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	15	3/7/2002	CE	160	3.4	9.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	15	3/7/2002	CS	100	<0.15	3.8	0.21	<0.11	<0.11	<0.11	<0.11	<0.14	<0.16	0.51	<0.11	<0.12	<0.24	<0.12		
SG-70	5	3/7/2002	IP	68	18	2.7	<1.0	19	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.3	
		3/7/2002	CS	240	52	13	1.1	95	<0.11	<0.11	<0.11	0.15	0.19	<0.089	<0.11	<0.12	<0.24	<0.12	Carbon Tetrachloride = 0.51; 1,1,2-trichlorotrifluoroethane = 11	
SG-71	5	3/8/2002	IP	57	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-72	5	3/8/2002	IP	7.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-73	5	3/8/2002	IP	160	7.2	5.1	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.2	
		3/8/2002	CS	750	33	24	0.95	63	<0.29	<0.29	<0.28	<0.35	<0.40	<0.23	0.49	2.1	11	3.0	1,1,2-trichlorotrifluoroethane = 5.8; 1,2,4-trimethylbenzene = 0.4	
SG-74	5	3/8/2002	IP	43	11	2.1	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.3	
SG-75	5	3/8/2002	IP	74	<1.0	6.4	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-76	5	3/8/2002	IP	68	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-81	5	3/8/2002	IP	28	1.9	1.3	<1.0	2.6	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-82	5	3/8/2002	IP	37	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/8/2002	CS	150	0.45	7.5	0.67	0.27	0.27	<0.029	<0.028	<0.035	<0.041	<0.023	<0.027	<0.031	0.063	<0.031		



**Table 14**  
**Summary of Selected VOC Analytical Results for Active Soil Gas Survey (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)																	
				Primary VOCs							Secondary VOCs										Other VOCs (3)
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	m/p-xylenes	o-xylene			
Building L Area																					
SG-39	5	3/4/2002	IP	120	<1.0	4.9	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-40	5	3/4/2002	IP	8.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-41	5	3/4/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-42	5	3/4/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-43	5	3/4/2002	IP	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-89	5	3/26/2002	IP	57	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Other Site Locations																					
SG-1	5	3/8/2002	IP	3.7	1	2.6	1.5	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.6		
		3/8/2002	CS	12	2.7	13	7.9	5.9	1.5	<0.030	<0.029	0.073	<0.042	<0.024	0.037	<0.032	<0.065	<0.032	1,1,2-trichlorotrifluoroethane = 0.50		
	15	3/8/2002	IP	3.8	2.0	7.0	8.7	2.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-2	5	3/8/2002	IP	2.3	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.9		
SG-3	5	3/8/2002	IP	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-4	5	3/8/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-5	5	3/8/2002	IP	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-6	5	3/8/2002	IP	9.0	1.8	6.4	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-7	5	3/4/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
		3/4/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
		3/4/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-8	5	3/4/2002	IP	4.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
		3/4/2002	IP	4.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-9	5	3/4/2002	IP	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-10	5	3/6/2002	IP	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-11	5	3/8/2002	IP	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-13	5	3/6/2002	IP	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-14	5	3/7/2002	CE	22	1.9	<1.0	<1.0	3.6	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-15	5	3/7/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-16	5	3/7/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-17	5	3/6/2002	IP	6.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-18	5	3/6/2002	IP	6.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SG-19	5	3/6/2002	IP	45	2.6	<1.0	<1.0	1.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			



**Table 14**  
**Summary of Selected VOC Analytical Results for Active Soil Gas Survey (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)																Other VOCs (3)
				Primary VOCs							Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	m/p-xylenes	o-xylene		
Other Site Locations																				
SG-21	5	3/8/2002	IP	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-22	5	3/8/2002	IP	5.8	2	<1.0	<1.0	1.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-30	5	3/8/2002	IP	8.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-44	5	3/7/2002	IP	7.6	1.3	<1.0	<1.0	1.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.4	
SG-47	5	3/5/2002	IP	55	35	1.1	<1.0	16	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.8	
SG-48	5	3/5/2002	IP	6.2	7.1	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.5	
SG-49	3	3/7/2002	IP	47	35	1.3	<1.0	25	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.5	
		3/7/2002	CE	77	64	1.5	<1.0	60	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.3	
SG-50	5	3/7/2002	IP	50	28	1.3	<1.0	18	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 4.0	
SG-51	5	3/7/2002	IP	45	6	<1.0	<1.0	4.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.5	
		3/7/2002	CE	84	13	<1.0	<1.0	13	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-52	5	3/6/2002	IP	46	3	<1.0	<1.0	2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 4.9	
SG-53	5	3/5/2002	IP	58	2.5	1.6	<1.0	1.4	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.6	
SG-69	5	3/7/2002	IP	29	1.1	4.0	<1.0	1.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/7/2002	CE	54	2.7	7.1	<1.0	4.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-78	5	3/8/2002	IP	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.4	
SG-79	5	3/8/2002	IP	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-80	5	3/8/2002	IP	12	1.3	<1.0	<1.0	1.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SG-90	5	3/26/2002	IP	42	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/26/2002	CS	46	1.7	0.59	<0.028	1.8	<0.029	<0.029	<0.027	<0.034	0.13	<0.023	<0.027	<0.031	<0.061	<0.031		



**Table 14**  
***Summary of Selected VOC Analytical Results for Active Soil Gas Survey (1)***  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

bgs	below ground or floor surface	PCE	Tetrachloroethene
1,1-DCA	1,1-dichloroethane	RWQCB	Regional Water Quality Control Board, Los Angeles Region
1,2-DCA	1,2-dichloroethane	TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene	1,1,1-TCA	1,1,1-trichloroethane
1,1-DCE	1,1-dichloroethene	µg/L	micrograms per liter
Dup	Duplicate or sequential sample	VOC	Volatile organic compound
NA	Sample not tested for this analyte.	<1.0	Analyte was not detected above the analytical method reporting limit shown.

**Notes**

- (1) A purge volume versus concentration test was performed at the start of the survey. Three times the tubing and bulb volume was purged before collection of each sample based on this test. The report by InterPhase Environmental, Inc. ("IP") with the results of the purge volume versus concentration test was provided in a previous EKI report (EKI, 2002c).
- (2) Samples were analyzed by one of the following: InterPhase Environmental, Inc. ("IP") and American Analytics ("AA"), a subcontractor to IP. analyzed samples on-Site using a gas chromatograph ("GC"); Centrum Analytical Mobile Laboratories, Inc. ("CE") analyzed samples on-Site using a GC and mass spectrometer; Calscience Environmental Laboratories, Inc. ("CS") analyzed duplicate soil gas sample collected in a Summa canister for VOCs using EPA Method TO-14A.
- (3) All soil gas samples analyzed on-Site were analyzed for the primary target list of 23 VOCs specified in the RWQCB guidelines. Soil gas samples were analyzed within approximately 2 hours of collection, in accordance with the RWQCB guidelines for analysis of soil gas samples collected in a glass bulb. Other VOCs are those detected at or above reporting limits in duplicate samples collected in summa canisters and analyzed for VOCs using EPA Method TO-14A.
- (4) Selected samples collected and analyzed on-Site by IP were analyzed using different dilutions. For detected compounds, the data presented herein represents the highest concentration reported. For compounds which were not detected, the lower reporting limit is presented.
- (5) The J-flag indicates that this is an estimated value. InterPhase reported that this sample concentration was calculated with interfering carryover contamination from previous analytical run.



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)														Other VOCs (3)
				Primary VOCs						Secondary VOCs								
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Central Building P Area																		
SVMW-202	15	3/26/2002	IP (4)	3,100	65	9.3	<1.0	27	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.7
		7/23/2002	IP	18,000	180	27	<1.0	70	<1.0	1.9	NA	1.9	65	<1.0	<1.0	<1.0	<1.0	1,1,2,2-tetrachloroethane = 9.9; 1,1,2-trichlorotrifluoroethane = 15
		11/5/2002	IP	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	IP	28	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	170	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	
	30	3/26/2002	IP	12,300	88	11	<1.0	37	<1.0	1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,1,2-tetrachloroethane = 10; 1,1,2-trichlorotrifluoroethane = 1.8
		7/3/2002	IP	64,000	270	36	<1.0	150	<1.0	2.4	NA	2.7	110	<1.0	<1.0	<1.0	2.7	1,1,1,2-tetrachloroethane = 50; 1,1,2-trichlorotrifluoroethane = 9.4
		7/3/2002	CS	25,000	210	21	<15	180	<15	<15	<15	<19	<21	<12	<14	<17	<33	
		7/3/2002	KP	27,472	<273	<269	<198	274	<202	<202	<50.0	<244	<281	<160	<188	<217	<217	
		7/23/2002	IP	67,000	300	41	<1.0	130	<1.0	2.2	NA	3.1	120	<1.0	2.5	3.7	11.4	Methylene chloride = 7.6; 1,1,1,2-tetrachloroethane = 61; 1,1,2-trichloroethane = 3.4; 1,1,2-trichlorotrifluoroethane = 3.9
		11/5/2002	IP	2,200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		11/5/2002	CS	1,300	0.64	0.39	<0.028	0.048	<0.028	<0.028	<0.027	<0.034	<0.039	<0.022	0.067	0.25	1.50	Acetone = 0.16; Chlorobenzene = 1.1; 4-ethyltoluene = 0.97; 1,3,5-trimethylbenzene = 0.37; 1,2,4-trimethylbenzene = 0.78; 1,2-dichlorobenzene = 0.15
		12/18/2002	IP	640	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	10,200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,1,2-tetrachloroethane = 1.2



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)														Other VOCs (3)
				Primary VOCs							Secondary VOCs							
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Central Building P Area																		
SVMW-202	45	3/26/2002	IP	25,000	120	16	4.1	63	<1.0	<1.0	NA	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,1,2-Tetrachloroethane = 22; 1,1,2-trichlorotrifluoroethane = 1.5
		7/23/2002	IP	86,000	310	44	1.5	180	1.5	3.5	NA	3.0	150	<1.0	<1.0	<1.0	1.7	Methylene chloride = 14; 1,1,1,2-tetrachloroethane = 49; 1,1,2-trichloroethane = 3.5; 1,1,2-trichlorotrifluoroethane = 8.1
		7/23/2002	CS	13,000	230	41	<2.5	210	<2.6	<2.6	<2.50	<3.1	15	<2.0	2.9	5.3	42	Methylene chloride = 14; 1,1,2-trichlorotrifluoroethane = 11; Chlorobenzene = 4.1
		7/23/2002	KP	60,981	<546	<537	<397	<397	<405	<405	<100	<488	<562	<319	<377	<434	<434	
		11/5/2002	IP	280	39	4.7	<1.0	11	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	IP	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	CS	110	7	2.8	0.10	2.3	1.0	<0.032	NA	0.20	<0.044	<0.025	<0.03	<0.034	<0.068	Acetone = 0.043; 4-ethyltoluene = 0.05
		1/7/2003	IP	420	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
SVMW-205	21	7/23/2002	IP	260	13	71	1.4	17	1.9	<1.0	NA	<1.0	4.0	<1.0	3.7	1.0	10.7	1,1,2-trichloroethane = 3.3; 1,1,2-trichlorotrifluoroethane = 7.0
		10/30/2002	AA	15	1.4	8.1	<1	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1	
		12/17/2002	IP	6.2	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/2/2003	IP	5.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	36	7/23/2002	IP	99	2.0	15	<1.0	3.8	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	19	5.1	23	5.1	<1	2.0	<1	NA	NA	<1	<1	<1	<1	<1	
		12/17/2002	IP	4.2	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	51	1/2/2003	IP	4.4	<1.0	1.5	3.9	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		7/23/2002	IP	82	<1.0	7.4	<1.0	2.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	30	23	52	14	13	5.0	<1	NA	NA	<1	<1	<1	<1	<1	
	12/17/2002	IP	7.7	1.2	11	33	1.7	2.5	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	1/2/2003	IP	14	5.1	18	41	3.9	3.9	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
SVMW-207	20	7/3/2002	IP	940	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
		7/26/2002	IP	887	44	13	<1.0	40	<1.0	<1.0	NA	<1.0	51	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 15
		11/4/2002	IP	180	1.1	2.8	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	45	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	53	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs					Secondary VOCs										
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Central Building P Area																			
SVMW-207	35	7/3/2002	IP	2,100	<25	<25	<25	<25	<25	<25	NA	<25	<25	<25	<25	<25	<25		
		7/26/2002	IP	1,500	74	19	1.1	85	<1.0	<1.0	NA	<1.0	100	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 9.1	
		11/4/2002	IP	150	2.4	5.3	<1.0	2.6	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	IP	56	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	CS	76	2.2	2.5	0.05	0.86	0.056	<0.039	NA	0.064	<0.054	<0.031	<0.036	<0.042	<0.083		
		1/7/2003	IP	57	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	50	7/3/2002	IP	4,300	<25	<25	<25	<25	<25	<25	NA	<25	<25	<25	<25	<25	<25		
		7/26/2002	IP	2,200	110	26	2.4	140	<1.0	<1.0	NA	<1.0	170	<1.0	<1.0	<1.0	<1.0		
		11/4/2002	IP	73	1.4	4.3	<1.0	4.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	IP	40	<1.0	6.1	<1.0	3.6	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.4	
		1/7/2003	IP	76	<1.0	10	<1.0	6.3	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	Acetone = 2.2; Carbon tetrachloride = 0.71; 4-ethyltoluene = 0.43; 1,3,5-trimethylbenzene = 0.46; 1,2,4-trimethylbenzene = 1.0; Hexachloro-1,3-butadiene = 2.6	
		1/7/2003	CS	43	4.4	9.8	0.36	8.8	0.51	<0.30	<0.29	<0.36	<0.42	<0.24	1.7	3.7	24.4		
SVMW-208	20	7/22/2002	IP	1,000	31	22	<1.0	39	1.1	<1.0	NA	<1.0	61	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.2	
		11/5/2002	IP	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	IP	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/7/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	35	7/22/2002	IP	1,700	36	28	3.4	56	2.2	<1.0	NA	<1.0	72	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.4	
		11/5/2002	IP	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	IP	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	50	1/7/2003	IP	290	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		7/22/2002	IP	820	17	12	2.5	25	<1.0	<1.0	NA	<1.0	36	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 8.9	
		11/5/2002	IP	10	<1.0	3.9	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
12/19/2002	IP	8.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1/7/2003	IP	15	<1.0	4.1	8.7	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
SVMW-209	20	7/2/2002	IP	1,200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
		7/25/2002	IP	3,000	180	17	<1.0	120	<1.0	<1.0	NA	<1.0	110	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.7	
		11/5/2002	IP	45	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	IP	230	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/7/2003	IP	60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)														Other VOCs (3)
				Primary VOCs					Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Central Building P Area																		
SVMW-209	35	7/2/2002	IP	2,900	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
		7/25/2002	IP	8,100	360	28	<1.0	250	<1.0	<1.0	NA	<1.0	230	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 17
		11/5/2002	IP	42	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	6.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	48	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	50	7/2/2002	IP	1,600	120	7.9	<1.0	103	<1.0	<1.0	NA	<1.0	75	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 8.2
		7/2/2002	CS	2,600	340	16	<2.7	270	<2.8	<2.8	<2.6	<3.3	<3.8	<2.2	<2.6	<3.0	<5.9	1,1,2-trichlorotrifluoroethane = 29
		7/2/2002	KP	5,220	228	<53.7	<39.7	382	<40.5	<40.5	<10.0	<48.8	<56.2	<31.9	<37.7	<43.4	<43.4	
		7/25/2002	IP	11,700	430	31	<1.0	330	1.0	<1.0	NA	<1.0	290	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 8.5
		11/5/2002	IP	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	79	2.4	11	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
SVMW-210	20	7/2/2002	IP	330	350	8.8	<1.0	55	<1.0	<1.0	NA	<1.0	19	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.1
		7/2/2002	CS	200	290	7.7	<0.43	76	0.58	0.60	<0.42	1.7	<0.60	<0.34	<0.41	<0.47	<0.93	1,1,2-trichlorotrifluoroethane = 4.8
		7/2/2002	KP	308	246	7.15	<1.49	65.8	<1.52	<1.52	<0.375	<1.83	<2.11	<1.20	<1.41	<1.63	<1.63	
		7/29/2002	IP	460	410	11	<1.0	50	<1.0	<1.0	NA	<1.0	23	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 11
		11/4/2002	IP	310	120	5.7	<1.0	5.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	
		12/16/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	100	26	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	35	7/2/2002	IP	850	470	13	<1.0	140	<1.0	5.3	NA	<1.0	50	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 6.9
		7/29/2002	IP	1,200	590	19	<1.0	130	<1.0	7.5	NA	2.6	60	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.3
		11/4/2002	IP	58	10	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/16/2002	IP	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/7/2003	IP	100	23	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	50	7/2/2002	CS	25	6.4	0.27	<0.037	0.26	0.053	<0.037	<0.036	<0.045	<0.052	<0.030	0.041	<0.040	<0.080	Carbon tetrachloride = 0.97
		7/2/2002	IP	1,800	540	20	<1.0	207	<1.0	5.3	NA	2.1	85	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 11
		7/29/2002	IP	310	84	3.6	<1.0	26	<1.0	<1.0	NA	<1.0	11	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.8
11/4/2002		IP	23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
12/16/2002		IP	5.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/7/2003	IP	35	6.5	<1.0	<1.0	3.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			



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Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs						Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Central Building P Area																			
SVMW-211	20	7/2/2002	IP	410	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
		7/29/2002	IP	1,500	89	12	<1.0	66	<1.0	<1.0	NA	<1.0	37	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	IP	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/16/2002	IP	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/7/2003	IP	9.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	35	7/2/2002	IP	1,200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
		7/29/2002	IP	6,200	160	24	<1.0	140	<1.0	<1.0	NA	<1.0	87	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 11	
		11/1/2002	IP	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	CS	7.4	0.15	0.15	<0.028	0.11	<0.028	<0.028	<0.027	<0.034	<0.039	<0.022	<0.026	<0.030	<0.61	Acetone = 0.049	
		12/16/2002	IP	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	50	1/7/2003	IP	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	
		7/2/2002	IP	8,700	150	21	<1.0	170	<1.0	<1.0	NA	<1.0	86	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 13
		7/2/2002	CS	1,900	160	16	<1.7	170	<1.7	<1.7	<1.7	<2.1	<2.4	<1.4	<1.6	<1.8	<3.7	1,1,2-trichlorotrifluoroethane = 17	
		7/2/2002	KP	2,496	100	13.4	<9.91	129	<10.1	<10.1	<2.50	<12.2	<14	<7.99	<9.42	<10.9	<10.9		
		7/29/2002	IP	980	47	6.3	<1.0	36	<1.0	<1.0	NA	<1.0	26	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.3 Carbon tetrachloride = 0.91; Methylene chloride = 0.86;	
		7/29/2002	CS	1,800	120	17	0.26	160	0.73	<0.23	<0.22	0.54	<0.32	<0.18	0.48	0.96	8.1	1,1,2-trichlorotrifluoroethane = 14; Acetone = 0.45; 1,2,4-trimethylbenzene = 0.33	
		11/1/2002	IP	22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/16/2002	IP	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/7/2003	IP	19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Building A Area																			
PMW-14	15	10/10/2002	IP	8.5	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	CS	6.7	0.20	2.7	<0.028	0.041	<0.028	<0.028	<0.027	0.13	<0.039	<0.022	<0.026	<0.030	<0.061	Carbon disulfide = 0.027	
		12/19/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/6/2003	IP	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	30	10/10/2002	IP	16	<1.0	5.5	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	1.2	<1.0	3.0		
		11/1/2002	IP	13	<1.0	11	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/19/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/6/2003	IP	14	<1.0	14	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)														Other VOCs (3)
				Primary VOCs						Secondary VOCs								
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Building A Area																		
PMW-14	45	10/10/2002	IP	24	8.3	57	<1.0	<1.0	1.8	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		11/1/2002	IP	20.0	8.3	55	<1.0	<1.0	1.9	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/6/2003	IP	28	7.8	64	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	60	10/10/2002	IP	25	12	13	<1.0	7.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		11/1/2002	IP	20	10	13	<1.0	7.4	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	37	14	7.2	<1.0	15	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 6.6 Acetone = 0.057; Methylene chloride = 0.12; Carbon tetrachloride = 0.11; 1,1,2-trichlorotrifluoroethane = 1.3
		12/19/2002	CS	69	29	11	<0.028	20	0.072	<0.028	NA	0.25	0.09	<0.022	<0.026	<0.03	<0.061	
		1/6/2003	IP	50	16	9.6	<1.0	13	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1/6/2003	CS	42	16	13	<0.12	14	0.73	<0.12	<0.12	0.19	<0.17	<0.096	<0.11	<0.13	<0.26	Carbon tetrachloride = 3.5; 1,1,2-trichloro-1,2,2-trifluoroethane = 1.4;		
PMW-17	10	10/10/2002	IP	5.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		11/4/2002	IP	71	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/6/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	25	10/10/2002	IP	6.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		11/4/2002	IP	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/19/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/6/2003	IP	4.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	40	10/10/2002	IP	7.7	10	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 0.23; Chloromethane = 0.021; Carbon disulfide = 0.13; 4-ethyltoluene = 0.021
		10/10/2002	CS	8.1	14	0.37	<0.012	1.1	0.40	<0.012	<0.012	0.020	0.040	0.020	0.030	<0.013	0.060	
		11/4/2002	IP	37	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/19/2002		IP	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/6/2003		IP	5.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



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**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)														Other VOCs (3)
				Primary VOCs					Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Oil Staging Area																		
PMW-11	15	7/11/2002	IP	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
		7/25/2002	IP	6,800	1.3	31	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/31/2002	IP	19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/3/2003	IP	6.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	30	7/11/2002	IP	1,600	<5.0	16	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
		7/25/2002	IP	5,100	2.2	44	1.7	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 6.1
		10/31/2002	IP	460	<1.0	3.1	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	IP	57	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/3/2003	IP	63	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	45	7/11/2002	IP	3,900	<25	43	<25	<25	<25	<25	NA	<25	<25	<25	<25	<25	<25	
		7/25/2002	IP	1,700	<1.0	11	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		7/25/2002	CS	5,100	12	56	5.2	8.1	<0.40	<0.40	<0.38	0.72	<0.56	<0.32	0.56	0.98	8.4	
		10/31/2002	IP	680	<1.0	10	2.1	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/31/2002	CS	180	0.97	8.1	2.6	2.7	0.067	<0.031	<0.030	0.089	<0.043	<0.024	<0.029	<0.033	<0.066	Chlorobenzene = 0.056
12/18/2002		IP	98	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
12/18/2002		CS	110	1.8	2.3	1.4	2.6	<0.033	<0.033	NA	0.086	<0.046	<0.026	<0.031	<0.035	<0.07		
1/3/2003		IP	110	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
PMW-12	20	7/11/2002	IP	1,000	<5.0	39	9.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
		7/25/2002	IP	950	1.1	37	11	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.9
		10/31/2002	IP	62	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	IP	23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/3/2003	IP	82	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	35	7/25/2002	IP	1,900	4.0	71	26	1.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 6.9
		10/31/2002	IP	86	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/18/2002	IP	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/3/2003	IP	21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	50	7/11/2002	IP	2,400	<5.0	80	25	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
		7/26/2002	IP	4,300	6.0	88	30	2.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.5
		10/31/2002	IP	64	<1.0	4.8	4.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/18/2002		IP	21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/3/2003		IP	55	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



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Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs						Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Oil Staging Area																			
SVMW-201	15	3/26/2002	IP	1,200	<1.0	32	1.7	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		3/26/2002	CS	10,000	4.9	120	8.7	<2.9	<2.9	<2.9	NA	<3.5	<4.0	<2.3	<2.7	<3.1	8.7		
		7/11/2002	IP	14,000	<100	280	<100	<100	<100	<100	NA	<100	<100	<100	<100	<100	<100		
		7/26/2002	IP	14,800	<1.0	200	7.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/4/2002	IP	580	<1.0	12	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/18/2002	IP	370	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/3/2003	IP	190	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	30	3/26/2002	IP	2,200	<1.0	45	2.9	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		7/11/2002	IP	19,000	<100	260	<100	<100	<100	<100	NA	<100	<100	<100	<100	<100	<100		
		7/26/2002	IP	18,900	3.6	170	9.9	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/4/2002	IP	28,200	<1.0	93	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	3.1		
		11/5/2002	IP	34,500	<1.0	90	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	3.8		
		12/18/2002	IP	13,500	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.4		
		1/3/2003	IP	9,100	<1.0	10	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	45	3/26/2002	IP	3,100	3.0	54	4.8	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.7	
		7/11/2002	IP	24,000	<100	290	<100	<100	<100	<100	NA	<100	<100	<100	<100	<100	<100		
		7/26/2002	IP	22,600	8.1	180	14	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 11	
		7/26/2002	CS	5,800	6.7	93	12	2.6	<0.64	<0.64	<0.62	0.92	<0.89	<0.51	0.93	1.9	16.1	Acetone = 1.4	
		11/4/2002	IP	330	1.6	7.0	2.2	3.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/4/2002	CS	180	3.1	5.9	2.6	6.6	0.063	<0.029	<0.027	0.045	<0.040	<0.023	<0.027	<0.031	<0.061	1,1,2-trichlorotrifluoroethane = 0.17; Chlorobenzene = 0.041	
		12/18/2002	IP	213	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/3/2003	IP	110	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0				
SVMW-214	16	7/11/2002	IP	110	6.2	<5.0	<5.0	15	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
		7/26/2002	IP	380	51	16	<1.0	78	<1.0	<1.0	NA	<1.0	7.7	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 7.7	
		10/31/2002	AA	150	3.9	2.3	<1.0	4.8	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.7	
		12/18/2002	IP	30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/3/2003	IP	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	31	7/11/2002	IP	470	54	18	<5.0	89	<5.0	<5.0	NA	<5.0	5.5	<5.0	<5.0	<5.0	<5.0		
		7/26/2002	IP	2,600	170	42	2.9	240	<1.0	<1.0	NA	<1.0	26	<1.0	2.3	<1.0	7.2	1,1,2-trichlorotrifluoroethane = 4.2	
		10/31/2002	AA	59	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/18/2002	IP	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/3/2003	IP	22	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0				



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs						Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Oil Staging Area																			
SVMW-214	46	7/11/2002	IP	1,700	140	38	<5.0	210	<5.0	<5.0	NA	<5.0	19	<5.0	<5.0	<5.0	<5.0	1,1,2-trichlorotrifluoroethane = 25	
		7/26/2002	IP	3,100	160	42	3.3	220	<1.0	<1.0	NA	<1.0	25	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 7.4	
		10/31/2002	AA	63	6.4	2.8	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/18/2002	IP	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/3/2003	IP	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Building L Area																			
SVMW-213	19	7/24/2002	IP	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		7/29/2002	IP	140	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		10/30/2002	AA	<1	<1	<1	<1	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1		
		12/18/2002	IP	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/3/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	34	7/24/2002	IP	43	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.0	
		7/29/2002	IP	52	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		10/30/2002	AA	3.0	<1	<1	<1	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1		
		12/18/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/3/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	49	7/24/2002	IP	9,000 (5)	6.2	2.3	<1.0	2.1	<1.0	<1.0	NA	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 18	
		7/24/2002	CS	24	0.080	1.5	0.082	3.7	<0.011	<0.011	<0.011	0.065	0.021	<0.0091	<0.011	<0.012	0.069	1,1,2-trichlorotrifluoroethane = 0.68; Acetone = 0.022	
		7/24/2002	KP	60.8	1.05	3.08	0.134	5.51	<0.040	<0.040	<0.010	<0.049	<0.056	<0.032	<0.038	<0.043	<0.043	1,1,2-trichlorotrifluoroethane = 1.03	
		7/29/2002	IP	55	<1.0	2.1	<1.0	1.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		10/30/2002	AA	3.9	<1	<1	<1	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1		
		10/30/2002	CS	4.1	0.32	0.20	<0.029	0.33	<0.029	<0.029	<0.028	0.075	<0.040	<0.023	<0.027	<0.031	0.219	Acetone = 0.13; 4-ethyltoluene = 0.088; 1,3,5-trimethylbenzene = 0.048; 1,2,4-trimethylbenzene = 0.10	
		12/18/2002	IP	52	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/3/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Other Site Locations																			
PMW-9	15	7/23/2002	IP	130	5.2	2	<1.0	5.1	<1.0	<1.0	NA	<1.0	4.4	<1.0	<1.0	<1.0	<1.0	1,1,2-trichloroethane = 3.2; 1,1,2-trichlorotrifluoroethane = 12	
		10/31/2002	IP	59	1.4	1.6	<1.0	1.3	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	23	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/2/2003	IP	17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs					Secondary VOCs										
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Other Site Locations																			
PMW-9	30	7/23/2002	IP	330	13	9.6	<1.0	16	<1.0	<1.0	NA	<1.0	13	<1.0	<1.0	<1.0	<1.0	1,1,2-trichloroethane = 3.3; 1,1,2-trichlorotrifluoroethane = 4.2	
		10/31/2002	IP	170	6.1	6.0	<1.0	8.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	76	<1.0	<1.0	<1.0	3.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/2/2003	IP	92	1.8	1.4	<1.0	4.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	45	7/23/2002	IP	400	18	15	<1.0	22	<1.0	<1.0	NA	<1.0	17	<1.0	<1.0	<1.0	<1.0	1,1,2-trichloroethane = 3.4; 1,1,2-trichlorotrifluoroethane = 6.0 Carbon Tetrachloride = 0.070; trans-1,2-dichloroethane = 0.085; 1,1,2-trichlorotrifluoroethane = 1.3; Vinyl Chloride = 0.011; Acetone = 0.020; 1,2,4-trimethylbenzene = 0.016	
		7/23/2002	CS	190	13	11	0.69	30	0.56	<0.012	<0.011	0.087	0.12	0.0094	0.016	<0.012	<0.025		
		7/23/2002	KP	309	10.0	9.78	<3.97	31.6	<4.05	<4.05	<1.00	<4.88	<5.62	<3.19	<3.77	<4.34	<4.34		
		10/31/2002	IP	320	13	14	<1.0	25	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	270	9.0	9.9	21	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/2/2003	IP	250	8.2	9.8	<1.0	18	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
PMW-10	18	7/24/2002	IP	2.5	3.4	<1.0	<1.0	5.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 11	
		11/1/2002	IP	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.4		
		12/17/2002	IP	8.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/6/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	33	7/24/2002	IP	23	17	<1.0	<1.0	17	<1.0	<1.0	NA	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.6	
		11/1/2002	IP	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	4.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	48	1/6/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		7/24/2002	IP	130	21	<1.0	<1.0	17	<1.0	<1.0	NA	<1.0	3.8	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 10	
		11/1/2002	IP	11.0	4.4	<1.0	<1.0	1.7	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
12/17/2002		IP	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1/6/2003	IP	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
PMW-13	15	7/24/2002	IP	64	<1.0	3.2	<1.0	2.0	<1.0	<1.0	NA	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 11	
		10/31/2002	IP	25	1.1	<1.0	<1.0	1.8	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	7.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/2/2003	IP	5.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs					Secondary VOCs										
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Other Site Locations																			
PMW-13	30	7/24/2002	IP	170	2.0	<1.0	<1.0	5.8	<1.0	<1.0	NA	<1.0	4.4	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 4.4	
		10/31/2002	IP	31	2.3	<1.0	<1.0	5.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	18	<1.0	<1.0	<1.0	3.9	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/2/2003	IP	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	45	7/24/2002	IP	89	4.1	1.2	<1.0	8.9	<1.0	<1.0	NA	<1.0	6.6	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 8.4	
		10/31/2002	IP	130	9.1	3.7	<1.0	20	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 2.4	
		12/17/2002	IP	130	7.4	1.8	<1.0	22	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.2	
		12/17/2002	CS	130	16.0	4.4	0.70	26	0.33	<0.034	NA	0.33	0.31	<0.027	<0.031	<0.036	<0.072	Carbon tetrachloride = 0.074; trans-1,2-dichloroethane = 0.12; 1,1,2-trichlorotrifluoroethane = 3.4	
	60	1/2/2003	IP	30	<1.0	<1.0	<1.0	3.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		7/24/2002	IP	180	6.7	3.9	<1.0	12	<1.0	<1.0	NA	<1.0	10	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 8.1	
		10/31/2002	IP	27	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		10/31/2002	CS	100	12	6.5	1.2	23	0.57	<0.031	<0.029	0.14	0.14	<0.024	<0.028	<0.033	<0.066	Carbon tetrachloride = 0.059; trans-1,2-dichloroethane = 0.21; 1,1,2-trichlorotrifluoroethane = 3.7	
		12/17/2002	IP	200	8.8	6.0	<1.0	24	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.9	
	1/2/2003	IP	210	8.3	5.8	<1.0	20	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 1.6		
PMW-15	20	7/23/2002	IP	73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	IP	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/6/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	35	7/23/2002	IP	71	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	IP	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/6/2003	IP	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
	50	7/23/2002	IP	55	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		11/1/2002	IP	46	<1.0	3.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		12/17/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
		1/6/2003	IP	27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



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**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)															Other VOCs (3)
				Primary VOCs						Secondary VOCs									
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Other Site Locations																			
PMW-15	65	7/23/2002	IP	93	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		11/1/2002	IP	70	<1.0	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/17/2002	IP	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/17/2002	CS	61	0.45	4.1	0.76	1.1	<0.034	<0.034	NA	0.10	<0.047	<0.027	<0.032	<0.037	<0.073		
		1/6/2003	IP	70	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
SVMW-203	18	7/22/2002	IP	28	13	32	44	9.9	4.2	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	3.7	<1	5.7	22	1.0	1.5	<1	NA	NA	<1	<1	<1	<1	<1	<1	
		12/16/2002	IP	<1.0	<1.0	<1.0	5.3	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/2/2003	IP	1.4	<1.0	1.2	9.4	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	33	7/22/2002	IP	34	22	38	89	17	6.9	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	21	22	29	140	18	11	<1	NA	NA	<1	<1	<1	<1	<1	<1	
		12/16/2002	IP	8.5	2.8	14	150	3.5	8.1	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/2/2003	IP	10	2.7	14	155	3.1	8.5	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	48	7/22/2002	IP	62	36	62	160	25	13	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	42	48	52	230	46	19	<2	NA	NA	<2	<2	<2	<2	<2	<2	
		12/16/2002	IP	25	16	31	310	20	21	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/16/2002	CS	39	30	35	130	44	27	0.39	NA	0.89	<0.041	0.096	0.039	<0.032	0.089	Chloroethane = 0.025; 1,1,2-trichlorotrifluoroethane = 1.7; Vinyl chloride = 0.097	
		1/2/2003	IP	27	9.7	30	310	16	21	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
SVMW-204	24	7/23/2002	IP	16	2.5	2.4	<1.0	1.2	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	3.4	1.4	<1	<1	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1	<1	
		12/16/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.5		
		1/2/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	39	7/23/2002	IP	21	7.2	4.5	<1.0	3.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.5		
		10/30/2002	AA	9.7	6.1	1.9	<1	1.3	<1	<1	NA	NA	<1	<1	<1	<1	<1	<1	
		12/16/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.0		
		1/2/2003	IP	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	54	7/23/2002	IP	54	11	6.4	<1.0	4.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	21	14	<5	<5	<5	<5	<5	NA	NA	<5	<5	<5	<5	<5	<5	
12/16/2002		IP	21	4.7	1.4	<1.0	2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1/2/2003		IP	19	4.3	<1.0	<1.0	1.5	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Area Location	Depth (feet, bgs)	Date	Analyzed By (2)	VOCs (µg/L) (3)														Other VOCs (3)
				Primary VOCs						Secondary VOCs								
				PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Other Site Locations																		
SVMW-206	14	7/23/2002	IP	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	<1	<1	<1	<1	<1	<1	<1	NA	NA	<1	<1	<1	<1	<1	
		12/17/2002	IP	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/2/2003	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	29	7/23/2002	IP	3.8	<1.0	9.3	1.3	3.9	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 3.6
		10/30/2002	AA	5.8	3.2	9.0	6.4	6.4	<1	<1	NA	NA	<1	<1	<1	<1	<1	
		12/17/2002	IP	1.8	<1.0	3.0	8.0	1.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/2/2003	IP	3.0	<1.0	3.6	9.3	1.1	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	44	7/23/2002	IP	33	4.4	28	14	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		10/30/2002	AA	24	10	26	22	22	2.3	<1	NA	NA	<1	<1	<1	<1	<1	
		12/17/2002	IP	12	3.7	14	30	13	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 5.4
		1/2/2003	IP	14	4.2	16	39	11	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
SVMW-212	20	7/11/2002	IP	530	290	20	<1.0	190	<1.0	<1.0	NA	<1.0	38	<1.0	<1.0	<1.0	6.7	1,1,2-trichlorotrifluoroethane = 29
		7/25/2002	IP	990	350	24	3.0	200	1.5	<1.0	NA	<1.0	54	<1.0	1.9	5.7	<1.0	Chloroethane = 4.1; 1,1,2-trichlorotrifluoroethane = 12
		11/4/2002	IP	82	7.8	2.8	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/16/2002	IP	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/16/2002	CS	13	1.2	0.26	0.19	0.12	<0.028	<0.028	NA	<0.034	<0.039	<0.022	<0.026	<0.03	<0.06	
		1/6/2003	IP	4.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/6/2003	CS	15	2.0	0.41	<0.033	0.30	<0.034	<0.034	<0.032	<0.041	<0.047	<0.027	<0.031	<0.036	<0.072	Carbon tetrachloride = 0.33
	35	7/11/2002	IP	690	470	28	<5.0	390	<5.0	<5.0	NA	<5.0	75	<5.0	<5.0	<5.0	<5.0	1,1,2-trichlorotrifluoroethane = 40
		7/25/2002	IP	820	500	31	4.2	350	<1.0	<1.0	NA	<1.0	90	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 6.1
		11/4/2002	IP	36	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/16/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/6/2003	IP	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	50	7/11/2002	IP	680	430	25	<5.0	370	<5.0	<5.0	NA	<5.0	72	<5.0	<5.0	<5.0	<5.0	1,1,2-trichlorotrifluoroethane = 39
		7/25/2002	IP	660	410	25	2.8	300	<1.0	<1.0	NA	<1.0	72	<1.0	<1.0	<1.0	<1.0	1,1,2-trichlorotrifluoroethane = 9.1
		7/25/2002	CS	270	250	9.4	3.3	280	0.88	<0.11	<0.10	0.56	0.64	<0.084	0.14	0.22	1.98	Carbon tetrachloride = 3.2; 1,1,2-trichlorotrifluoroethane = 25; Acetone = 0.19
		7/25/2002	KP	699	273	24.1	<3.97	424	<4.05	<4.05	<1.00	<4.88	<5.62	<3.19	<3.77	<4.34	<4.34	1,1,2-trichlorotrifluoroethane = 32.1
		11/4/2002	IP	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		12/16/2002	IP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
		1/6/2003	IP	15	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	



**Table 15**  
**Summary of Selected VOC Analytical Results for Soil Vapor Samples from Vapor Monitoring Wells (1)**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

bgs	below ground or floor surface	RWQCB	Regional Water Quality Control Board, Los Angeles Region
1,1-DCA	1,1-dichloroethane	1,1,1-TCA	1,1,1-trichloroethane
1,2-DCA	1,2-dichloroethane	TCE	Trichloroethene
1,1-DCE	1,1-dichloroethene	µg/L	micrograms per Liter
cis-1,2-DCE	cis-1,2-dichloroethene	VOC	Volatile organic compound
NA	Sample was not tested for this analyte.	<1.0	Analyte was not detected above analytical method reporting limit shown.
PCE	Tetrachloroethene		

**Notes**

- (1) This table does not include purge volume versus concentration test results or other quality assurance/quality control test results. During sample collection in July 2002, purge volume versus concentration tests were performed. These tests indicated that ten times the well tubing and bulb volume should be purged prior to sampling the shallowest vapor screen interval, ten volumes for the middle vapor screen interval, and seven volumes for the deepest vapor screen interval. The purge volume test results from July 2002 were used in subsequent sampling events. These results are presented in reports by InterPhase Environmental, Inc. ("IP") in Appendix \_\_\_\_.
- (2) Samples were analyzed by one of the following: IP and American Analytics ("AA"), a subcontractor for IP, analyzed samples on-Site using a gas chromatograph ("GC"); K-Prime, Inc. ("KP") and Calscience Environmental Laboratories, Inc. ("CS") analyzed duplicate soil gas samples collected in a Summa canister for VOCs using EPA Method TO-14A (GC/MS Scan) or TO-15 (GC/MS Scan).
- (3) All soil gas samples analyzed on-Site by IP were analyzed for the primary target list of 23 VOCs specified in the RWQCB guidelines. Soil gas samples were analyzed within approximately 2 hours of collection, in accordance with the RWQCB guidelines for analysis of soil gas samples collected in a glass bulb. "Other VOCs" are those detected above reporting limits in duplicate samples collected in summa canisters and analyzed for VOCs using EPA Method TO-14A or TO-15.
- (4) Selected samples collected and analyzed on-site by IP were analyzed using different dilutions. For detected compounds, the data presented herein represents the highest concentration reported. For compounds which were not detected, the lower reporting limit is presented.
- (5) This analytical result for the sample collected on 24 July 2002 from well SVMW-213 at 49 feet bgs appears to be anomalous. As listed in the table, results for both duplicate samples collected on this date and submitted to outside laboratories were less than 61 µg/L.



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	VOCs (µg/L) (2)														Other VOCs
		Primary VOCs					Secondary VOCs									
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Central Building P Area																
PMW-23	12/5/2002	1,403	<20.0	<20.0	<20.0	27.3	<20.0	<20.0	<40.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	
	12/5/2002	1,475	<20.0	<20.0	<20.0	28.1	<20.0	<20.0	<40.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	
	1/8/2003	1,470	16.4	11.3	<5.00	31.3	<5.00	<5.00	10.4	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	
PMW-24	12/5/2002	600	21.4	<5.00	<5.00	18.2	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	
	1/8/2003	790	31.4	7.23	<5.00	33.5	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	
PMW-25	12/5/2002	789	12.0	15.8	<5.00	21.8	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	
	1/8/2003	746	9.43	13.1	<5.00	21.2	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	
PMW-26	12/6/2002	333	8.67	36.1	19.0	15.3	6.34	<4.00	<8.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	
	1/8/2003	185	6.18	34.7	21.2	12.1	4.96	<2.50	<5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	
Building A Area																
MW-4	3/8/2002	50.8	13.4	1.51	<0.500	8.63	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
	6/5/2002	80.2	13.7	4.39	<1.00	12.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.08	1.09	2.4	
	8/12/2002	75.5	18.1	2.53	<1.00	15.5	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	
	11/8/2002	43.7	10.2	1.51	<0.500	8.98	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/7/2003	46.7	9.09	1.55	<0.500	9.90	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	VOCs (µg/L) (2)														Other VOCs	
		Primary VOCs					Secondary VOCs										
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Building A Area																	
MW-5	3/8/2002	3.213	60.4	26.5	<20	39.3	<20	<20	<20	<20	<20	<20	<20	<20	<20	<40	1,2-dichlorobenzene = 23
	6/5/2002	1.977	33.3	26.0	20.8	26.5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<40	
	8/14/2002	333	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	
	11/8/2002	307	<5.00	<5.00	<5.00	5.11	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	
	11/8/2002	241	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<8.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	
	1/8/2003	238	2.67	2.81	<2.50	4.45	<2.50	<2.50	<5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	
MW-6	3/8/2002	24.9	0.95	1.89	1.45	0.65	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
	6/5/2002	55.3	<1.00	4.13	1.83	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.70	1.24	3.78	
	8/13/2002	18.1	0.74	1.11	0.76	0.62	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
	8/13/2002	18.6	0.80	1.18	0.78	0.66	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
	11/8/2002	13.1	<0.500	0.590	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/7/2003	26.0	0.930	6.27	<0.500	2.13	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
MW-7	3/8/2002	197	20.6	2.17	<1.00	9.34	1.15	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	
	3/8/2002	190	18.2	1.92	<1.00	8.17	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	
	6/5/2002	170	12.5	4.91	<1.00	9.92	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.53	1.21	3.79	
	8/12/2002	195	10.5	2.37	<2.00	9.89	<2.00	<2.00	<4.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<4.00	
	8/12/2002	188	10.0	2.20	<2.00	9.52	<2.00	<2.00	<4.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<4.00	
	11/8/2002	245	14.9	<4.00	<4.00	10.6	<4.00	<4.00	<8.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	
	1/8/2003	557	21.1	<5.00	<5.00	22.6	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	VOCs (µg/L) (2)														Other VOCs
		Primary VOCs						Secondary VOCs								
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Building A Area																
MW-8	3/8/2002	60	29.5	3.33	<0.500	20.8	<0.500	<0.500	<0.500	0.52	<0.500	<0.500	<0.500	<0.500	<1.00	
	6/5/2002	84.5	24.2	6.31	<1.00	25.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.39	1.21	3.64	
	6/5/2002	78.1	22.2	5.74	<1.00	22.9	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.29	1.12	2.48	
	8/13/2002	47.8	22.3	3.46	<0.500	23.0	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
	11/8/2002	38.8	15.9	3.06	<0.500	16.2	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/6/2003	47.7	15.8	3.65	<0.500	17.8	<0.500	<0.500	<1.00	0.600	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/6/2003	46.6	15.2	3.41	<0.500	14.9	<0.500	<0.500	<1.00	0.580	<0.500	<0.500	<0.500	<0.500	<0.500	
PMW-14	10/22/2002	61.3	21.5	2.63	<0.500	19.2	<0.500	<0.500	<1.00	0.610	0.640	<0.500	<0.500	<0.500	<0.500	
	11/8/2002	49.5	17.4	2.33	<0.500	15.3	<0.500	<0.500	<1.00	0.540	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/7/2003	75.0	19.7	3.15	<0.500	23.5	<0.500	<0.500	<1.00	0.580	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/7/2003	73.9	20.2	3.11	<0.500	24.2	<0.500	<0.500	<1.00	0.610	<0.500	<0.500	<0.500	<0.500	<0.500	
PMW-21B	12/5/2002	3.20	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/6/2003	2.57	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
Oil Staging Area																
PMW-11	8/14/2002	1,320	<20	30.4	<20	<20	<20	<20	<40	<20	<20	<20	<20	<20	<40	
	8/14/2002	1,260	<20	28.7	<20	<20	<20	<20	<40	<20	<20	<20	<20	<20	<40	
	11/7/2002	843	<10.0	21.2	<10.0	<10.0	<10.0	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	
	1/8/2003	395	5.86	12.2	4.72	10.6	<2.50	<2.50	<5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	
PMW-22	12/6/2002	58.4	1.26	3.75	1.75	2.39	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	12/6/2002	54.0	1.17	3.46	1.85	2.12	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/7/2003	12.8	<0.500	1.70	<0.500	0.900	<0.500	<0.500	<1.00	0.510	<0.500	<0.500	<0.500	<0.500	<0.500	



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	VOCs (µg/L) (2)														Other VOCs	
		Primary VOCs					Secondary VOCs										
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
Building L Area																	
PMW-12	8/14/2002	11.6	<0.500	0.790	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00		
	11/7/2002	59.4	<1.00	1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		
	1/7/2003	55.7	<0.500	0.570	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
Other Site Locations																	
A1	(3)	3/8/2002	2.76	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00		
	(4)	5/13/2002	2.10	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<10	<1.0	<10.0	<0.5	<1.0	<1.0	<2.0	
	(5)	8/14/2002	2.50	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	NA	<1.0	NA	<0.5	<1.0	<1.0	<1.0	
A2	(3)	3/8/2002	375	206	293	2,434	137	83.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<80.0	1,2-dichlorobenzene = 54.8
	(4)	5/13/2002	270	170	270	3,400	140	130	<25	<500	<50	<500	<25	<50	<50	<100	
	(5)	8/14/2002	290	140	230	3,000	100	69	24	NA	3.4	NA	5.8	<1.0	<1.0	1.1	s-butylbenzene = 2.1; Isopropylbenzene = 5; trans-1,2-dichloroethene = 8.7; 1,2-dichlorobenzene = 3.3; Vinyl Chloride = 1.7
PMW-9	8/13/2002	18.6	1.19	6.07	<0.500	1.95	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00		
	11/7/2002	17.7	0.740	3.89	<0.500	1.52	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500		
	1/7/2003	14.3	<0.500	0.740	<0.500	0.630	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500		
PMW-10	8/12/2002	96.4	52.7	4.29	<1.00	50.3	<1.00	<1.00	<2.00	<1.00	1.38	<1.00	<1.00	<1.00	<2.00		
	11/7/2002	80.3	45.3	3.64	<1.00	40.1	<1.00	<1.00	<2.00	1.02	<1.00	<1.00	<1.00	<1.00	<1.00		
	1/7/2003	66.8	29.8	3.21	<0.500	33.7	<0.500	<0.500	<1.00	0.700	<0.500	<0.500	<0.500	<0.500	<0.500		



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	VOCs (µg/L) (2)														Other VOCs
		Primary VOCs					Secondary VOCs									
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Other Site Locations																
PMW-13	8/13/2002	334	6.92	11.9	6.13	10.6	<2.50	<2.50	<5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<5.00	
	11/7/2002	261	5.39	9.33	5.28	9.32	<4.00	<4.00	<8.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	
	11/7/2002	241	5.00	8.62	5.15	8.27	<4.00	<4.00	<8.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	
	1/8/2003	247	4.52	9.56	4.34	9.59	<2.50	<2.50	<5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	
	1/8/2003	273	4.99	10.3	4.76	10.7	<2.50	<2.50	<5.00	<2.50	<2.50	<2.50	<2.50	<2.50	<2.50	
PMW-15	8/12/2002	139	<2.00	9.74	4.32	<2.00	<2.00	<2.00	<4.00	<2.00	<2.00	<2.00	<2.00	<2.00	<4.00	
	11/7/2002	126	<2.00	7.36	2.92	<2.00	<2.00	<2.00	<4.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	
	1/7/2003	117	<1.00	7.13	2.21	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	
Off-Site																
PMW-19	12/5/2002	4.67	<0.500	2.02	<0.500	1.42	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/6/2003	6.05	<0.500	2.73	<0.500	2.09	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
PMW-20	12/5/2002	3.27	<0.500	1.52	<0.500	0.560	<0.500	<0.500	<1.00	0.510	<0.500	<0.500	<0.500	<0.500	<0.500	
	1/6/2003	3.55	<0.500	1.53	<0.500	0.690	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
Equipment Rinseate Blanks, Field Blanks, and Trip Blanks																
ERB (6)	3/8/2002	20.4	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	5.98	<0.500	<0.500	<0.500	<0.500	<1.00	Bromodichloromethane = 1.02
ERB-1 (6)	6/5/2002	83.2	1.68	9.19	3.48	2.47	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	9.95	2.60	7.64	2-butanone = 76
FB-1 (7)	8/12/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
FB-2 (7)	8/13/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	Carbon Disulfide = 13.2
FB-3 (7)	8/14/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	
Trip Blank	8/12/2002	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	
Trip Blank	8/14/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	VOCs (pg/L) (2)														Other VOCs
		Primary VOCs					Secondary VOCs									
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes	
Equipment Rinseate Blanks, Field Blanks, and Trip Blanks																
ERB-7 (8)	8/12/2002	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.500	<0.50	<0.50	<0.50	Carbon Disulfide = 15.2
ERB-13 (8)	8/13/2002	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.500	<0.50	<0.50	<0.50	
Trip Blank	10/22/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-1	11/7/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
TB	11/7/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-2	11/8/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
TB	11/8/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-1	12/5/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
TB-1	12/5/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
TB-2	12/5/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-2	12/6/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
TB-3	12/6/2002	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-1	1/6/2003	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
TB-1	1/6/2003	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-2	1/7/2003	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	Methyl tert-butyl ether = 1.00
TB-2	1/7/2003	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	
FB-3	1/8/2003	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	Methyl tert-butyl ether = 1.15
TB-3	1/8/2003	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	



**Table 16**  
**Summary of VOC Analytical Results for Groundwater**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

1,1-DCA	1,1-dichloroethane	PCE	Tetrachloroethene
1,2-DCA	1,2-dichloroethane	1,1,1-TCA	1,1,1-trichloroethane
1,1-DCE	1,1-dichloroethene	TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene	µg/L	micrograms per liter
ERB	Equipment rinseate blank	VOC	Volatile organic compound
FB	Field blank		
NA	Sample not tested for this analyte or result not available.		

**Notes**

- (1) During the March and June 2002 sampling events, monitoring wells MW-4, MW-5, MW-6, MW-7, and MW-8 were purged and sampled using a submersible pump. Samples were collected during the March and June 2002 sampling events in accordance with low flow purging and sampling techniques described in EKI's *Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study*, dated 12 June 2002. During all subsequent sampling events, dedicated bladder pumps and tubing installed in Site wells were used to collect samples from these wells in accordance with low flow purging and sampling procedures described in U.S. EPA Ground Water Issue: *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, dated December 1995, and U.S. EPA Region 9 *Quick Reference Advisory – Use of Low-Flow Methods for Groundwater Purging and Sampling: An Overview*, dated December 1995.
- (2) These samples were analyzed for approximately 60 target VOCs including 1,4-dioxane, 1,2,3-trichloropropane, and methyl tertiary butyl ether, using EPA Methods 5030 and 8260B. Analytes not shown were not detected at or above laboratory reporting limits.
- (3) EKI collected split samples from wells A1 and A2 on 8 March 2002 during sampling conducted by Arcadis Geraghty & Miller ("AG&M").
- (4) Data for these samples obtained from AG&M's *Second Quarter 2002 Groundwater Monitoring Report, Brenntag West, Inc. (Former Holchem, Inc./Chase Chemical) Property, 13450 and 13456 Desmond Street, Pacoima, California*, dated 15 July 2002.
- (5) Data for these samples obtained from tables provided by AG&M, under the subject of *Brenntag West, Inc. (Former Holchem, Inc./Chase Chemical) Property, Pacoima, California*, dated 29 October 2002.
- (6) ERB and ERB-1 were collected in the field during the March and June 2002 sampling events using water supplied by the sampling subcontractor, which was also used to decontaminate the sample collection equipment. After decontaminating the sample collection equipment, this water was passed through the equipment and collected in the appropriate containers for chemical analysis.
- (7) The FBs were collected directly from the sampling subcontractor's water supply and this water did not come in contact with the dedicated groundwater pumps or tubing.
- (8) ERB-7 and ERB-13 were collected from rinse water passed through the dedicated pump and tubing prior to installation of this equipment in wells MW-7 and PMW-13. After running approximately 1/2 gallon of water supplied by the sampling subcontractor through the pump and tubing for approximately 5 minutes, this water was collected in the appropriate container for chemical analysis.



**Table 17**  
**Summary of TPH Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	TPH (µg/L)	
		TVPH (2) (3)	TEPH (4)
Central Building P Area			
PMW-23	12/5/2002	496	<50
	12/5/2002	536	<50
	1/8/2003	521	<50
PMW-24	12/5/2002	222	<50
	1/8/2003	226	<50
PMW-25	12/5/2002	218	<50
	1/8/2003	259	66
PMW-26	12/6/2002	119	<50
	1/8/2003	98	70 (5)
Building A Area			
MW-4	3/8/2002	<50	<50
	6/5/2002	<50	<50
	8/12/2002	<50	<50
	11/8/2002	<50	<50
	1/7/2003	<50	<50
MW-5	3/8/2002	835	189 (6)
	6/5/2002	724	<50
	8/14/2002	111	<50
	11/8/2002	102	<50
	11/8/2002	105	<50
	1/8/2003	83	<50
MW-6	03/08/02	<50	<50
	06/05/02	<50	<50
	8/13/2002	<50	<50
	8/13/2002	<50	<50
	11/8/2002	<50.0	<50
	1/7/2003	<50	<50
MW-7	3/8/2002	56.0	<50
	3/8/2002	55.0	<50
	6/5/2002	89.0	<50
	8/12/2002	52.0	<50
	8/12/2002	57.0	<50
	11/8/2002	94	<50
	1/8/2003	168	61 (5)



**Table 17**  
**Summary of TPH Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	TPH (µg/L)	
		TVPH (2) (3)	TEPH (4)
Building A Area			
MW-8	3/8/2002	<50	<50
	6/5/2002	<50	<50
	6/5/2002	57.0	<50
	8/13/2002	<50	<50
	11/8/2002	<50	<50
	1/6/2003	<50	<50
	1/6/2003	<50	<50
PMW-14	10/22/2002	<50	<50
	11/8/2002	<50	<50
	1/7/2003	<50	<50
	1/7/2003	<50	<50
PMW-21B	12/5/2002	<50	<50
	1/6/2003	<50	<50
Oil Staging Area			
PMW-11	8/14/2002	437	<50
	8/14/2002	478	<50
	11/7/2002	320	<50
	1/8/2003	146	<50
PMW-22	12/6/2002	<50	<50
	12/6/2002	<50	<50
	1/7/2003	<50	<50
Building L Area			
PMW-12	8/14/2002	<50	<50
	11/7/2002	<50	<50
	1/7/2003	<50	<50
Other Site Locations			
A1 (7) (8)	3/8/2002	<50	<50
	5/13/2002	NA	NA
A2 (7) (8)	3/8/2002	2,230	214 (9)
	5/13/2002	NA	NA
PMW-9	8/13/2002	<50	<50
	11/7/2002	<50	<50
	1/7/2003	<50	<50
PMW-10	8/12/2002	<50	<50
	11/7/2002	67.0	52.8
	1/7/2003	<50	<50



**Table 17**  
**Summary of TPH Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (1)	TPH (µg/L)	
		TVPH (2) (3)	TEPH (4)
Other Site Locations			
PMW-13	8/13/2002	94.0	<50
	11/7/2002	104	<50
	11/7/2002	111	52.6
	1/8/2003	86	<50
	1/8/2003	89	<50
PMW-15	8/12/2002	<50	<50
	11/7/2002	66.0	<50
	1/7/2003	<50	<50
Off-Site			
PMW-19	12/5/2002	<50	<50
	1/6/2003	<50	<50
PMW-20	12/5/2002	<50	<50
	1/6/2003	<50	<50
Equipment Rinseate Blanks, Field Blanks, and Trip Blanks			
ERB (10)	3/8/2002	<50	<50
ERB-1 (10)	6/5/2002	57.0	<50
FB-1 (11)	8/12/2002	<50	486 (12)
FB-2 (11)	8/13/2002	<50	514 (12)
FB-3 (11)	8/14/2002	<50	819 (12)
Trip Blank	8/12/2002	NA	NA
Trip Blank	8/14/2002	NA	NA
ERB-7 (13)	8/12/2002	<50	480 (12)
ERB-13 (13)	8/13/2002	<50	369 (14)



## Table 17

### *Summary of TPH Analytical Results for Groundwater*

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

#### Abbreviations

ERB	Equipment rinseate blank
FB	Field blank
NA	Sample was not tested for this analyte, or result is not available.
TEPH	Total extractable petroleum hydrocarbons
TPH	Total petroleum hydrocarbons
TVPH	Total volatile petroleum hydrocarbons
µg/L	micrograms per liter

#### Notes

- (1) During the March and June 2002 sampling events, monitoring wells MW-4, MW-5, MW-6, MW-7, and MW-8 were purged and sampled using a submersible pump. Samples were collected during the March and June 2002 sampling events in accordance with low flow purging and sampling techniques described in *EKI's Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study*, dated 12 June 2002. During all subsequent sampling events, dedicated bladder pumps and tubing installed in Site wells were used to collect samples from these wells in accordance with low flow purging and sampling procedures described in U.S. EPA *Ground Water Issue: Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, dated December 1995, and U.S. EPA Region 9 *Quick Reference Advisory – Use of Low-Flow Methods for Groundwater Purging and Sampling: An Overview*, dated December 1995.
- (2) Samples were analyzed for TVPH using EPA Method 8015M.
- (3) Analytical laboratory representatives believe that compounds reported at TVPH are not petroleum hydrocarbons, but are tetrachloroethene and other volatile organic compounds that have been confirmed separately in groundwater at the Site by EPA Method 8260B.
- (4) Samples were analyzed for TEPH with silica gel cleanup using EPA Method 8015M.
- (5) Analytical laboratory reported the chromatographic pattern for this sample was broad and unresolved with a diesel carbon range.
- (6) The laboratory reported that the chromatograph pattern for the sample collected from well MW-5 in March 2002 was broad, partially resolved and had a carbon range somewhat lighter than diesel.
- (7) EKI collected split samples from wells A1 and A2 on 8 March 2002 during sampling conducted by Arcadis Geraghty & Miller ("AG&M").
- (8) Sample analytical results obtained from AG&M's *Second Quarter 2002 Groundwater Monitoring Report, Brenntag West, Inc. (Former Holchem, Inc./Chase Chemical) Property, 13450 and 13456 Desmond Street, Pacoima, California*, dated 15 July 2002.
- (9) Analytical laboratory reported two chromatographic patterns for the sample collected from well A2 in March 2002. One pattern was broad, poorly resolved and had a carbon range somewhat lighter than diesel. The second pattern was narrow, partially resolved and had a carbon range much lighter than diesel.
- (10) ERB and ERB-1 were collected in the field during the March and June 2002 sampling events using water supplied by the sampling subcontractor, which was also used to decontaminate the sample collection equipment. After decontaminating the sample collection equipment, this water was passed through the equipment and collected in the appropriate containers for chemical analysis.



**Table 17**  
***Summary of TPH Analytical Results for Groundwater***  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

**Notes**

- (11) The FBs were collected directly from the sampling subcontractor's water supply and this water did not come in contact with the dedicated groundwater pumps or tubing.
- (12) Analytical laboratory reported that the chromatographic pattern for samples FB-1, FB-2, FB-3, and ERB-7 was broad and poorly resolved with a carbon range somewhat heavier than diesel.
- (13) ERB-7 and ERB-13 were collected from rinse water passed through the dedicated pump and tubing prior to installation of this equipment in wells MW-7 and PMW-13. After running approximately 1/2 gallon of water supplied by the sampling subcontractor through the pump and tubing for approximately 5 minutes, this water was collected in the appropriate container for chemical analysis.
- (14) Analytical laboratory reported three chromatographic patterns for sample ERB-13. One pattern was broad and poorly resolved with a carbon range heavier than diesel. The other two patterns were narrow and partially resolved with carbon ranges somewhat lighter than diesel.



**Table 18**  
**Summary of Inorganic Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (2)	Inorganic Compounds (µg/L) (2)																			pH (3)
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide	
Central Building P Area																					
PMW-23	12/5/2002	1.23	<1.0	509	<1.0	<1.0	9.11	<5.0	<1.0	2.65	<1.0	<0.2	4.41	2.91	1.42	<1.0	<1.0	3.63	230	NA	NA
	12/5/2002	4.39	<1.0	503	<1.0	<1.0	9.75	<5.0	<1.0	6.43	<1.0	<0.2	4.42	3.94	<1.0	<1.0	<1.0	3.86	169	NA	NA
	1/8/2003	2.50	<1.0	613	<1.0	<1.0	6.75	<5.0	<1.0	1.27	<1.0	<0.2	2.40	<1.0	1.68	<1.0	<1.0	3.22	145	<3	7.18
PMW-24	12/5/2002	3.39	<1.0	528	<1.0	<1.0	7.68	<5.0	<1.0	1.53	<1.0	<0.2	9.81	2.16	1.04	<1.0	<1.0	3.73	160	NA	NA
	1/8/2003	2.42	<1.0	593	<1.0	<1.0	4.07	<5.0	<1.0	1.31	<1.0	<0.2	3.81	1.06	1.82	<1.0	<1.0	2.68	188	<3	7.24
PMW-25	12/5/2002	2.36	<1.0	569	<1.0	<1.0	10.7	<5.0	<1.0	6.06	<1.0	<0.2	3.17	6.75	1.29	<1.0	<1.0	3.70	193	NA	NA
	1/8/2003	3.14	<1.0	672	<1.0	<1.0	9.34	<5.0	<1.0	2.87	<1.0	<0.2	1.27	2.91	1.91	<1.0	<1.0	2.96	202	<3	7.20
PMW-26	12/6/2002	1.43	<1.0	444	<1.0	<1.0	31.8	35.0	2.59	1.92	<1.0	<0.2	2.17	12.3	3.17	<1.0	<1.0	3.25	222	NA	NA
	1/8/2003	2.54	<1.0	481	<1.0	<1.0	42.0	33.0	1.49	2.0	<1.0	<0.2	<1.0	9.11	3.11	<1.0	<1.0	5.27	217	<3	7.15
Building A Area																					
MW-4	3/8/2002	<1.0	<1.0	186	<1.0	<1.0	1.28	<5.0	<1.0	1.11	<1.0	<0.2	1.86	2.19	1.16	<1.0	<1.0	1.54	13.6	NA	NA
	6/5/2002	<1.0	<1.0	180	<1.0	<1.0	10.6	<10	<1.0	1.18	<1.0	<0.2	1.85	1.46	1.15	<1.0	<1.0	4.08	3.01	NA	NA
	8/12/2002	<1.0	<1.0	222	<1.0	<1.0	14.8	<5.0	<1.0	<1.0	<1.0	<0.2	2.29	2.07	<1.0	<1.0	<1.0	5.18	39.9	NA	NA
	11/8/2002	4.00	<1.0	648	<1.0	<1.0	5.18	5.00	<1.0	<1.0	<1.0	<0.2	1.87	1.04	<1.0	<1.0	<1.0	2.64	189	NA	NA
	1/7/2003	3.73	<1.0	424	<1.0	<1.0	12.3	<5.0	<1.0	1.50	<1.0	<0.2	1.85	<1.0	1.25	<1.0	<1.0	4.63	152	<3	7.42
MW-5	3/8/2002	<1.0	<1.0	244	<1.0	<1.0	<1.0	<5.0	<1.0	1.17	<1.0	<0.2	<1.0	1.57	1.16	<1.0	<1.0	1.08	6.44	NA	NA
	6/5/2002	<1.0	<1.0	240	<1.0	<1.0	16.4	<10	<1.0	<1.0	<1.0	<0.2	1.02	1.51	1.28	<1.0	<1.0	5.28	4.14	NA	NA
	8/14/2002	<1.0	<1.0	238	<1.0	<1.0	18.0	<5.0	<1.0	1.07	<1.0	<0.2	2.20	<1.0	<1.0	<1.0	<1.0	5.76	63.1	NA	NA
	11/8/2002	1.01	<1.0	473	<1.0	<1.0	6.68	<5.0	<1.0	23.5	1.65	<0.2	2.31	<1.0	<1.0	<1.0	<1.0	2.85	142	NA	NA
	11/8/2002	2.21	<1.0	521	<1.0	<1.0	6.01	<5.0	<1.0	1.33	<1.0	<0.2	2.04	<1.0	<1.0	<1.0	<1.0	2.71	103	NA	NA
	1/8/2003	3.15	<1.0	691	<1.0	<1.0	12.1	<5.0	<1.0	1.35	<1.0	<0.2	2.12	<1.0	1.52	<1.0	<1.0	4.45	160	<3	7.39



Table 18

# Summary of Inorganic Analytical Results for Groundwater

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (2)	Inorganic Compounds (µg/L) (2)													pH (3)					
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide
Building A Area MW-6	3/8/2002	<1.0	<1.0	200	<1.0	<1.0	3.33	<5.0	<1.0	2.19	<1.0	<0.2	1.89	2.18	1.18	<1.0	<1.0	1.55	7.10	NA
	6/5/2002	<1.0	<1.0	193	<1.0	<1.0	14.0	<10	<1.0	<1.0	<1.0	<0.2	1.92	1.22	1.02	<1.0	<1.0	4.54	3.71	NA
	8/13/2002	<1.0	<1.0	216	<1.0	<1.0	16.9	<10	<1.0	<1.0	<1.0	<0.2	1.97	<1.0	<1.0	<1.0	<1.0	5.19	32.7	NA
	8/13/2002	<1.0	<1.0	206	<1.0	<1.0	21.9	<10	<1.0	<1.0	<1.0	<0.2	2.01	<1.0	<1.0	<1.0	<1.0	6.53	15.8	NA
	11/8/2002	1.28	<1.0	557	<1.0	<1.0	7.71	8.00	<1.0	<1.0	<1.0	<0.2	1.84	1.36	<1.0	<1.0	<1.0	2.79	181	NA
	1/7/2003	6.78	<1.0	711	<1.0	<1.0	13.4	<5.0	<1.0	2.05	<1.0	<0.2	1.83	1.44	1.57	<1.0	<1.0	4.48	204	<3
MW-7	3/8/2002	<1.0	<1.0	190	<1.0	<1.0	7.23	<5.0	<1.0	<1.0	<1.0	<0.2	2.31	1.74	1.47	<1.0	<1.0	1.59	2.86	NA
	3/8/2002	<1.0	<1.0	191	<1.0	<1.0	7.26	<5.0	<1.0	<1.0	<1.0	<0.2	2.16	1.72	<1.0	<1.0	<1.0	1.48	5.36	NA
	6/5/2002	<1.0	<1.0	180	<1.0	<1.0	13.8	<10	<1.0	<1.0	<1.0	<0.2	2.03	1.47	1.20	<1.0	<1.0	3.88	3.57	NA
	8/12/2002	<1.0	<1.0	192	<1.0	<1.0	17.1	<5.0	<1.0	1.88	<1.0	<0.2	2.47	2.56	<1.0	<1.0	<1.0	5.49	38.4	NA
	8/12/2002	<1.0	<1.0	196	<1.0	<1.0	14.7	<5.0	<1.0	<1.0	<1.0	<0.2	2.52	1.40	<1.0	<1.0	<1.0	4.92	34.0	NA
	11/8/2002	4.13	<1.0	639	<1.0	<1.0	6.35	7.00	<1.0	<1.0	<1.0	<0.2	2.17	<1.0	<1.0	<1.0	<1.0	2.80	218	NA
MW-8	1/8/2003	5.70	<1.0	551	<1.0	<1.0	11.0	<5.0	<1.0	1.85	<1.0	<0.2	2.05	<1.0	1.34	<1.0	<1.0	4.12	215	<3
	3/8/2002	<1.0	<1.0	204	<1.0	<1.0	1.94	<5.0	<1.0	1.72	<1.0	<0.2	1.83	2.57	1.19	<1.0	<1.0	1.50	5.11	NA
	6/5/2002	<1.0	<1.0	182	<1.0	<1.0	12.3	<10	<1.0	1.10	<1.0	<0.2	1.74	1.76	<1.0	<1.0	<1.0	4.49	12.4	NA
	6/5/2002	<1.0	<1.0	186	<1.0	<1.0	11.4	<10	<1.0	2.03	<1.0	<0.2	1.71	1.59	1.25	<1.0	<1.0	4.30	5.09	NA
	8/13/2002	<1.0	<1.0	278	<1.0	<1.0	17.2	<10	<1.0	<1.0	<1.0	<0.2	1.86	1.07	<1.0	<1.0	<1.0	5.63	110	NA
	11/8/2002	2.50	<1.0	774	<1.0	<1.0	5.02	7.00	<1.0	<1.0	<1.0	<0.2	1.64	<1.0	<1.0	<1.0	<1.0	2.60	223	NA
	1/6/2003	<1.0	<1.0	251	<1.0	<1.0	16.2	<5.0	<1.0	6.58	<1.0	<0.2	1.69	<1.0	1.34	<1.0	<1.0	5.81	20.1	<3
	1/6/2003	<1.0	<1.0	205	<1.0	<1.0	14.7	<5.0	<1.0	51.6	2.82	<0.2	1.58	<1.0	1.46	<1.0	<1.0	5.43	37.1	<3



**Table 18**  
**Summary of Inorganic Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (2)	Inorganic Compounds (µg/L) (2)																			pH (3)
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide	
Building A Area																					
PMW-14	10/22/2002	1.87	<1.0	427	<1.0	<1.0	8.04	<5.0	<1.0	<1.0	<1.0	<0.2	3.60	1.32	1.02	<1.0	<1.0	3.28	184	NA	NA
	11/8/2002	3.35	<1.0	635	<1.0	<1.0	6.33	<5.0	<1.0	<1.0	<1.0	<0.2	2.23	1.10	<1.0	<1.0	<1.0	2.85	179	NA	NA
	1/7/2003	1.51	<1.0	577	<1.0	<1.0	13.2	<5.0	<1.0	1.30	<1.0	<0.2	1.64	<1.0	1.50	<1.0	<1.0	4.79	166	<3	7.21
	1/7/2003	3.96	<1.0	614	<1.0	<1.0	13.1	<5.0	<1.0	7.45	19.8	<0.2	1.73	<1.0	1.75	<1.0	<1.0	4.83	175	<3	7.20
PMW-21B	12/5/2002	2.36	<1.0	846	<1.0	<1.0	9.00	<5.0	<1.0	50.9	12.9	<0.2	8.61	2.74	<1.0	<1.0	<1.0	3.26	470	NA	NA
	1/6/2003	<1.0	<1.0	638	<1.0	<1.0	15.8	<5.0	<1.0	1.01	<1.0	<0.2	2.68	<1.0	1.60	<1.0	<1.0	5.35	176	<3	7.32
Oil Staging Area																					
PMW-11	8/14/2002	<1.0	<1.0	230	<1.0	<1.0	23.1	<5.0	<1.0	<1.0	<1.0	<0.2	3.39	1.23	1.07	<1.0	<1.0	7.28	51.5	NA	NA
	8/14/2002	<1.0	<1.0	209	<1.0	<1.0	21.0	<5.0	<1.0	<1.0	<1.0	<0.2	3.26	1.11	<1.0	<1.0	<1.0	6.68	33.6	NA	NA
	11/7/2002	2.48	<1.0	740	<1.0	<1.0	9.22	NA	<1.0	3.77	1.02	<0.2	1.84	1.72	1.17	<1.0	<1.0	3.71	262	NA	NA
	1/8/2003	3.26	<1.0	663	<1.0	<1.0	12.8	<5.0	<1.0	1.51	<1.0	<0.2	1.52	<1.0	2.05	<1.0	<1.0	4.81	227	<3	7.26
PMW-22	12/6/2002	2.83	<1.0	488	<1.0	<1.0	5.61	<5.0	<1.0	1.31	<1.0	<0.2	4.21	1.84	1.14	<1.0	<1.0	3.09	178	NA	NA
	12/6/2002	<1.0	<1.0	436	<1.0	<1.0	4.16	<5.0	<1.0	<1.0	<1.0	<0.2	3.67	1.79	<1.0	<1.0	<1.0	2.63	125	NA	NA
	1/7/2003	2.27	<1.0	604	<1.0	<1.0	11.2	<5.0	<1.0	1.35	<1.0	<0.2	1.87	<1.0	1.71	<1.0	<1.0	4.55	175	<3	7.33
Building L Area																					
PMW-12	8/14/2002	2.64	1.03	423	<1.0	<1.0	14.3	<5.0	<1.0	1.03	<1.0	<0.2	3.00	1.47	<1.0	<1.0	<1.0	4.76	129	NA	NA
	11/7/2002	3.14	<1.0	605	<1.0	<1.0	6.63	<5.0	<1.0	1.19	<1.0	<0.2	1.51	1.35	<1.0	<1.0	<1.0	2.85	228	NA	NA
	1/7/2003	4.38	<1.0	437	<1.0	<1.0	11.6	<5.0	<1.0	1.37	<1.0	<0.2	1.41	<1.0	1.49	<1.0	<1.0	4.28	147	<3	7.31



**Table 18**  
**Summary of Inorganic Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (2)	Inorganic Compounds (µg/L) (2)																			pH (3)
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide	
Other Site Locations																					
A1 (4)	3/8/2002	<1.0	<1.0	254	<1.0	<1.0	1.80	<5.0	4.14	<1.0	<1.0	<0.2	1.49	4.67	1.45	<1.0	<1.0	1.21	11.7	NA	NA
A2 (4)	3/8/2002	<1.0	<1.0	301	<1.0	<1.0	<1.0	<5.0	2.33	<1.0	<1.0	<0.2	2.48	4.97	1.99	<1.0	<1.0	1.22	4.42	NA	NA
PMW-9	8/13/2002	<1.0	<1.0	217	<1.0	<1.0	21.4	<10	<1.0	<1.0	<1.0	<0.2	2.35	<1.0	<1.0	<1.0	<1.0	6.06	25.7	NA	NA
	11/7/2002	4.31	<1.0	678	<1.0	<1.0	11.0	6.68	<1.0	<1.0	<1.0	<0.2	1.51	1.38	<1.0	<1.0	<1.0	3.35	249	NA	NA
	1/7/2003	2.93	<1.0	729	<1.0	<1.0	16.4	<5.0	<1.0	2.37	<1.0	<0.2	1.45	1.14	1.64	<1.0	<1.0	4.89	227	<3	7.27
PMW-10	8/12/2002	<1.0	<1.0	222	<1.0	<1.0	16.4	<5.0	<1.0	<1.0	<1.0	<0.2	3.08	1.88	1.07	<1.0	<1.0	5.45	45.6	NA	NA
	11/7/2002	1.20	<1.0	511	<1.0	<1.0	7.91	<5.0	<1.0	<1.0	<1.0	<0.2	1.56	1.08	<1.0	<1.0	<1.0	3.36	207	NA	NA
	1/7/2003	5.71	<1.0	555	<1.0	<1.0	11.7	<5.0	<1.0	1.76	<1.0	<0.2	1.67	<1.0	1.69	<1.0	<1.0	4.46	200	<3	7.18
PMW-13	8/13/2002	<1.0	<1.0	259	<1.0	<1.0	36.2	17.0	<1.0	<1.0	<1.0	<0.2	1.99	2.76	1.19	<1.0	<1.0	6.41	59.0	NA	NA
	11/7/2002	<1.0	<1.0	391	<1.0	<1.0	21.4	NA	<1.0	<1.0	<1.0	<0.2	1.62	2.82	<1.0	<1.0	<1.0	3.22	42.2	NA	NA
	11/7/2002	<1.0	<1.0	378	<1.0	<1.0	20.6	NA	<1.0	<1.0	<1.0	<0.2	1.64	2.75	1.11	<1.0	<1.0	3.12	27.4	NA	NA
	1/8/2003	<1.0	<1.0	560	<1.0	<1.0	20.6	13.0	<1.0	<1.0	<1.0	<0.2	1.59	2.31	1.6	<1.0	<1.0	3.89	108	NA	7.40
	1/8/2003	2.29	<1.0	650	<1.0	<1.0	21.6	12.0	<1.0	1.44	<1.0	<0.2	1.66	2.31	1.73	<1.0	<1.0	4.09	178	<3	7.33
PMW-15	8/12/2002	<1.0	<1.0	223	<1.0	<1.0	14.6	<5.0	<1.0	<1.0	<1.0	<0.2	2.34	2.01	<1.0	<1.0	<1.0	4.64	42.3	NA	NA
	11/7/2002	3.43	<1.0	753	<1.0	<1.0	6.35	<5.0	<1.0	<1.0	<1.0	<0.2	1.71	1.05	<1.0	<1.0	<1.0	3.01	209	NA	NA
	1/7/2003	2.41	<1.0	625	<1.0	<1.0	11.3	<5.0	<1.0	1.22	<1.0	<0.2	1.56	<1.0	1.54	<1.0	<1.0	4.47	115	<3	7.28
Off-Site																					
PMW-19	12/5/2002	2.82	1.80	603	<1.0	<1.0	7.65	<5.0	<1.0	1.63	<1.0	<0.2	12.5	1.92	<1.0	<1.0	<1.0	3.78	124	NA	NA
	1/6/2003	<1.0	1.35	485	<1.0	<1.0	13.3	<5.0	<1.0	1.16	<1.0	<0.2	3.76	<1.0	1.31	<1.0	<1.0	5.24	159	<3	7.40
PMW-20	12/5/2002	<1.0	<1.0	305	<1.0	<1.0	7.75	<5.0	<1.0	<1.0	<1.0	<0.2	2.86	1.80	<1.0	<1.0	<1.0	3.24	75.7	NA	NA
	1/6/2003	2.64	<1.0	632	<1.0	<1.0	14.5	<5.0	<1.0	1.33	<1.0	<0.2	2.00	<1.0	1.19	<1.0	<1.0	5.23	141	<3	7.26



**Table 18**  
**Summary of Inorganic Analytical Results for Groundwater**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (2)	Inorganic Compounds (µg/L) (2)																			pH (3)
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Cyanide	
Equipment Rinseate Blanks and Field Blanks																					
ERB (5)	3/8/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<0.2	<1.0	1.02	<1.0	<1.0	<1.0	<1.0	3.51	NA	NA
ERB-1 (5)	6/5/2002	<1.0	<1.0	2.04	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.67	NA	NA
FB-1 (6)	8/12/2002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	2.70	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	15.2	NA	NA
FB-2 (6)	8/13/2002	<1.0	<1.0	<1.0	<1.0	<1.0	1.38	<10	<1.0	1.80	<1.0	<0.2	<1.0	2.97	<1.0	<1.0	<1.0	<1.0	22.3	NA	NA
FB-3 (6)	8/14/2002	<1.0	<1.0	<1.0	<1.0	<1.0	1.30	<5.0	<1.0	1.33	<1.0	<0.2	<1.0	1.49	<1.0	<1.0	<1.0	<1.0	18.8	NA	NA
ERB-7 (7)	8/12/2002	1.46	<1.0	11.7	<1.0	<1.0	<1.0	NA	<1.0	1.35	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	25.6	NA	NA
ERB-13 (7)	8/13/2002	<1.0	<1.0	29.2	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.97	NA	NA



## Table 18

### *Summary of Inorganic Analytical Results for Groundwater*

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

#### Abbreviations

ERB	Equipment rinseate blank
ICP/MS	Inductively coupled plasma/mass spectroscopy
FB	Field blank
NA	Sample was not analyzed for this compound, or result is unavailable.
µg/L	micrograms per liter

#### Notes

- (1) During the March and June 2002 sampling events, monitoring wells MW-4, MW-5, MW-6, MW-7, and MW-8 were purged and sampled using a submersible pump. Samples were collected during the March and June 2002 sampling events in accordance with low flow purging and sampling techniques described in EKI's *Work Plan for Site Characterization and Soil Vapor Extraction Pilot Study*, dated 12 June 2002. During subsequent sampling events, dedicated bladder pumps and tubing installed in Site wells were used to collect samples from these well in accordance with low flow purging and sampling procedures described in U.S. EPA Ground Water Issue: *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, dated December 1995, and U.S. EPA Region 9 *Quick Reference Advisory – Use of Low-Flow Methods for Groundwater Purging and Sampling: An Overview*, dated December 1995.
- (2) These samples were analyzed for seventeen metals by ICP/MS using EPA Method 200.8, for hexavalent chromium using EPA Method 7196/200.8, and for total cyanide by EPA Method 335.2.
- (3) These samples were analyzed for pH by EPA Method 150.1
- (4) EKI collected split samples from wells A1 and A2 on 8 March 2002 during sampling conducted by Arcadis Geraghty & Miller.
- (5) ERB and ERB-1 were collected in the field during the March and June 2002 sampling events using water supplied by the sampling subcontractor, which was also used to decontaminate the sample collection equipment. After decontaminating the sample collection equipment, this water was passed through the equipment and collected in the appropriate containers for chemical analysis.
- (6) FBs were collected directly from the sampling subcontractor's water supply and this water did not come in contact with the dedicated groundwater pumps or tubing.
- (7) ERB-7 and ERB-13 were collected from rinse water passed through the dedicated pump and tubing prior to installation of this equipment in wells MW-7 and PMW-13. After running approximately 1/2 gallon of water supplied by the sampling subcontractor through the pump and tubing for approximately 5 minutes, this water was collected in the appropriate container for chemical analysis.



**Table 19**  
**Summary of VOC and TPH Analytical Results for**  
**Free Hydrocarbon Product Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date	VOCs (mg/kg) (1)														TPH (mg/kg)	
		Primary VOCs					Secondary VOCs									TVPH (2)	TEPH (3)
		PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	1,2-DCA	Bromomethane	Chloroform	Trichlorofluoromethane	Benzene	Toluene	Ethylbenzene	Total Xylenes		
MW-1	3/7/2002	313	21.0	<16.5	<16.5	<16.5	<16.5	<16.5	31.1	<16.5	<16.5	<16.5	<16.5	<16.5	<16.5	515	862,000 (4)
MW-2	3/7/2002	220	53.5	<16.5	<16.5	<16.5	<16.5	<16.5	22.7	<16.5	<16.5	<16.5	<16.5	<16.5	<16.5	598	897,000 (4)
MW-3	3/7/2002	26.5	<18.9	<18.9	<18.9	<18.9	<18.9	<18.9	21.7	<18.9	<18.9	<18.9	<18.9	<18.9	<18.9	323	918,000 (4)

**Abbreviations**

1,1-DCA	1,1-dichloroethane	1,1,1-TCA	1,1,1-trichloroethane
1,2-DCA	1,2-dichloroethane	TCE	Trichloroethene
1,1-DCE	1,1-dichloroethene	TEPH	Total Extractable Petroleum Hydrocarbons
cis-1,2-DCE	cis-1,2-dichloroethene	TPH	Total Petroleum Hydrocarbons
mg/kg	milligrams per kilogram	TVPH	Total Volatile Petroleum Hydrocarbons
PCE	Tetrachloroethene	VOC	Volatile Organic Compound

**Notes**

- (1) These samples were analyzed for approximately 60 target VOCs including 1,4-dioxane, 1,2,3-trichloropropane, and methyl tert-butyl ether using EPA Methods 5035 and 8260B. Analytes not shown were not detected at laboratory reporting limits.
- (2) These samples were analyzed for TVPH by EPA Method 8015M.
- (3) These samples were analyzed for TEPH with silica gel cleanup using EPA Method 8015M.
- (4) The laboratory reported that the chromatographic pattern for these samples had a broad, partially resolved type and a range somewhat heavier than diesel.



**Table 20**  
**Summary of Inorganic Analytical Results for**  
**Free Hydrocarbon Product Samples**  
Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Well	Date (2)	Metals (mg/kg) (1)																	
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
MW-1	3/7/2002	<2.0	<2.0	<2.0	<2.0	<2.0	2.39	NA	<2.0	25.2	4.74	<2.0	<0.40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-2	3/7/2002	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	25.8	4.93	<2.0	<0.40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-3	3/7/2002	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	18.3	13.0	<2.0	<0.40	<2.0	<2.0	<2.0	<2.0	<2.0	2.49

**Abbreviations**

mg/kg    milligrams per kilogram  
NA       Sample not tested for this analyte, or result not available.

**Notes**

- (1) These samples were analyzed for metals regulated under the California Code of Regulations, Title 22 by ICP/MS using EPA Method 3050/6020.



**Table 21****Summary of Chemicals of Potential Concern Detected in Soil Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Chemical (1)	Samples Analyzed	Samples Detected	Frequency of Detection	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	Industrial PRG (mg/kg) (2)
<b>VOCs</b>						
<b>Primary VOCs</b>						
Tetrachloroethene	329	150	45.6%	0.0009	244	3.4
1,1,1-trichloroethane	329	10	3.0%	0.0007	0.847	1,200
Trichloroethene	329	12	3.6%	0.00146	3.91	0.11
cis-1,2-dichloroethene	323	1	0.3%	0.00302	0.00302	150
1,1-dichloroethene	329	3	0.9%	0.001	0.0049	410
<b>Secondary VOCs</b>						
1,2-dichloroethane	329	2	0.6%	0.0005	0.0006	0.60
Bromomethane	328	23	7.0%	0.00138	1.36	13
Trichlorofluoromethane	328	3	0.9%	0.00162	0.00208	2,000
Benzene	336	3	0.9%	0.0005	0.00289	1.3
Toluene	336	10	3.0%	0.00156	0.0403	520
Ethylbenzene	336	5	1.5%	0.0008	0.0209	20
Total Xylenes	328	3	0.9%	0.00149	0.0347	420
<b>Other VOCs</b>						
Acetone	177	3	1.7%	0.064	0.236	6,000
2-butanone	282	1	0.4%	0.0617	0.0617	27,000
Chlorobenzene	199	3	1.5%	0.0045	0.0358	530
Chloromethane	152	1	0.7%	0.427	0.427	2.6
1,4-dioxane	182	2	1.1%	0.4	0.96	160
4-isopropyltoluene	238	2	0.8%	0.00172	0.00346	--
Methylene Chloride	191	1	0.5%	0.018	0.018	21
Styrene	321	1	0.3%	0.0103	0.0103	1,700
<b>Non-VOCs</b>						
<b>Petroleum Hydrocarbons</b>						
TVPH	286	29	10.1%	0.11	160	--
TEPH	347	142	40.9%	10.8	71,100	--
<b>Metals and Cyanide</b>						
Arsenic	249	25	10.0%	1	10	1.6
Barium	249	207	83.1%	48.7	254	67,000
Cadmium	249	7	2.8%	1.2	13.9	450
Chromium	249	242	97.2%	2.93	330	450
Hexavalent Chromium	210	20	9.5%	1.01	22.8	64
Cobalt	249	193	77.5%	2.69	27	1,900
Copper	291	259	89.0%	1.8	18,200	41,000
Lead	293	158	53.9%	0.6	6,200	750



**Table 21*****Summary of Chemicals of Potential Concern Detected in Soil Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Chemical (1)	Samples Analyzed	Samples Detected	Frequency of Detection	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	Industrial PRG (mg/kg) (2)
<b>Non-VOCs</b>						
<b>Metals and Cyanide</b>						
Mercury	248	7	2.8%	0.109	0.152	--
Nickel	249	199	79.9%	2.51	1100	20,000
Silver	249	6	2.4%	2.9	6.77	5,100
Vanadium	249	205	82.3%	4.67	28	7,200
Zinc	293	260	88.7%	11.1	56,900	100,000
Cyanide	98	5	5.1%	0.14	0.58	12,000
<b>Semi-Volatile Organic Compounds</b>						
Chrysene	54	1	1.9%	0.0693	0.0693	210
Phenanthrene	54	2	3.7%	0.0544	0.0999	--
Pyrene	54	5	9.3%	0.0544	0.0973	29,000

**Abbreviations**

--	no information available
mg/kg	milligrams per kilogram
TEPH	Total extractable petroleum hydrocarbons
TVPH	Total volatile petroleum hydrocarbons
VOC	Volatile organic compound

**Notes**

- (1) Only those chemicals that have been detected at least once above analytical method reporting limits in soil samples are included in this table.
- (2) U.S. EPA Region IX Preliminary Remediation Goal ("PRG") for soil intended for industrial land use, where available.



**Table 22*****Summary of Chemicals of Potential Concern Detected in Soil Gas Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Chemical (1)	Samples Analyzed	Samples Detected	Frequency of Detection	Minimum Detected Concentration (µg/L)	Maximum Detected Concentration (µg/L)	Occupational RBSL (µg/L) (2)
<b>VOCs</b>						
<b>Primary VOCs</b>						
Tetrachloroethene	347	321	93%	1.0	86,000	12
1,1,1-Trichloroethane	347	168	48%	0.080	540	4,800
Trichloroethene	347	192	55%	0.15	290	33
cis-1,2-dichloroethene	347	60	17%	0.082	310	170
1,1-dichloroethene	347	152	44%	0.041	324	1.4
<b>Secondary VOCs</b>						
1,1-dichloroethane	347	31	9%	0.063	21	43
1,2-dichloroethane	347	11	3%	0.60	7.5	3.2
trans-1,2-dichloroethene	339	2	1%	0.085	0.21	330
Vinyl Chloride	347	1	0.3%	0.011	0.011	0.87
Chloroform	333	23	7%	0.02	3.1	13
Trichlorofluoromethane	347	51	15%	0.021	290	--
Benzene	347	2	1%	0.0094	0.020	2.3
Toluene	347	15	4%	0.016	3.7	2,000
Ethylbenzene	347	10	3%	0.22	5.7	4,800
Total Xylenes	347	22	6%	0.06	42	3,300
<b>Other VOCs</b>						
Acetone	31	7	23%	0.02	1.4	1,700
Carbon Disulfide	31	2	6%	0.027	0.13	--
Carbon Tetrachloride	339	5	1%	0.059	3.2	1.6
Chlorobenzene	31	4	13%	0.041	4.1	300
Chloroethane	347	1	0.3%	4.1	4.1	82
Chloromethane	31	1	3%	0.021	0.021	38
1,2-dichlorobenzene	31	1	3%	0.15	0.15	970
4-ethyltoluene	30	3	10%	0.021	0.97	--
Hexachloro-1,3-butadiene	31	1	3%	0.087	0.087	--
Methylene Chloride	56	3	5%	0.86	14	68
1,1,1,2-tetrachloroethane	316	5	2%	10	61	--
1,1,2,2-tetrachloroethane	347	1	0.3%	9.9	10	1.2
1,1,2-trichloroethane	347	6	2%	3.2	7.0	4.3
1,1,2-trichlorotrifluoroethane	347	102	29%	0.045	40	--
1,2,4-trimethylbenzene	31	6	19%	0.016	0.78	--
1,3,5-trimethylbenzene	31	2	6%	0.048	0.37	--



## Table 22

### *Summary of Chemicals of Potential Concern Detected in Soil Gas Samples*

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

--	no information available
µg/L	micrograms per liter
VOC	Volatile organic compound

#### **Notes**

- (1) Only those chemicals that have been detected at least once above analytical method reporting limits in soil gas samples are included in this table.
- (2) Regional Water Quality Control Board, San Francisco Bay Region, Risk-Based Screening Level ("RBSL") for shallow soil gas in an occupational scenario, where available.



**Table 23****Summary of Chemicals of Potential Concern Detected in Groundwater Samples**

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Chemical (1)	Samples Analyzed	Samples Detected	Frequency of Detection	Minimum Detected Concentration (µg/L)	Maximum Detected Concentration (µg/L)	MCL (µg/L) (2)
<b>VOCs</b>						
<b>Primary VOCs</b>						
Tetrachloroethene	46	46	100.0%	2.1	3,213	5
1,1,1-trichloroethane	46	31	67.4%	0.74	206	200
Trichloroethene	46	37	80.4%	0.590	293	5
cis-1,2-dichloroethene	46	13	28.3%	0.76	3,400	6
1,1-dichloroethene	46	33	71.7%	0.62	140	6
<b>Secondary VOCs</b>						
1,1-dichloroethane	46	5	10.9%	1.15	130	5
1,2-dichloroethane	46	1	2.2%	24	24	0.5
trans-1,2-dichloroethene	46	1	2.2%	8.7	8.7	10
Vinyl Chloride	46	1	2.2%	1.7	1.7	0.5
Chloroform	46	5	10.9%	0.52	3.4	80 (3)
Trichlorofluoromethane	44	2	4.5%	0.640	1.38	150
Benzene	46	1	2.2%	5.8	5.8	1
Toluene	46	4	8.7%	3.08	3.7	150
Ethylbenzene	46	4	8.7%	1.09	1.24	700
Total Xylenes	46	6	13.0%	2.4	3.79	1,750
<b>Other VOCs</b>						
1,2-dichlorobenzene	46	3	6.5%	3.3	54.8	600
s-butylbenzene	46	1	2.2%	2.1	2.1	240 (4)
Isopropylbenzene	46	1	2.2%	5	5	660 (4)
<b>Non-VOCs</b>						
<b>Petroleum Hydrocarbons</b>						
TEPH	42	4	9.5%	52.6	214	--
TVPH	42	20	47.6%	0.119	835	--
<b>Metals and Cyanide</b>						
Antimony	42	19	45.2%	1.01	4.39	6
Arsenic	42	1	2.4%	1.03	1.03	50
Barium	42	42	100.0%	180	846	1,000
Chromium	42	40	95.2%	1.28	36.2	50
Hexavalent Chromium	40	7	17.5%	5.00	35.0	110 (4)
Cobalt	42	3	7.1%	2.33	4.1	730 (4)
Copper	42	18	42.9%	1.03	50.9	1,300 (3) (5)
Lead	42	3	7.1%	1.02	12.9	15 (3) (5)
Molybdenum	42	41	97.6%	1.02	9.81	180 (4)



**Table 23*****Summary of Chemicals of Potential Concern Detected in Groundwater Samples***

Price Pfister, Inc., 13500 Paxton Street, Pacoima, California

Chemical (1)	Samples Analyzed	Samples Detected	Frequency of Detection	Minimum Detected Concentration (µg/L)	Maximum Detected Concentration (µg/L)	MCL (µg/L) (2)
<b>Non-VOCs</b>						
<b>Metals and Cyanide</b>						
Nickel	42	36	85.7%	1.04	12.3	100
Selenium	42	23	54.8%	1.02	3.17	50
Vanadium	42	42	100.0%	1.08	7.28	260 (4)
Zinc	42	42	100.0%	2.86	470	11,000 (4)

**Abbreviations**

-- no information available  
 µg/L micrograms per liter  
 TEPH Total extractable petroleum hydrocarbons  
 TVPH Total volatile petroleum hydrocarbons  
 VOC Volatile organic compound

**Notes**

- (1) Only those chemicals that have been detected at least once above analytical method reporting limits in groundwater samples are included in this table.
- (2) State of California Maximum Contaminant Level ("MCL") for drinking water, where available.
- (3) No California MCL is available for this chemical. The value listed is the U.S. EPA MCL.
- (4) No MCL is available for this chemical. The value listed is the U.S. EPA Region IX Preliminary Remediation Goal for tapwater.
- (5) MCL is based on action level for treatment technique and public notification.



**Table 24**  
**Physical Parameters Used To Calculate Risk-Based Screening Levels**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Parameter	Symbol	Unit	Value	Note/Reference
<b>Building Parameters</b>				
Length of building	-	cm	2,600	Assumed length of planned building
Width of building	-	cm	1,887	Assumed width of planned building
Height of building	-	cm	305	Equivalent to 10 ft; typical of a commercial building
Slab thickness	-	cm	15	Default value for Johnson and Ettinger model (2)
Indoor air exchange rate	-	1/hr	1	Specified by DTSC HERD for another project
Indoor pressure differential	-	g/cm-s <sup>2</sup>	40	Default value for Johnson and Ettinger model (2)
Floor-wall seam crack width	-	cm	0.1	Default value for Johnson and Ettinger model (2)
<b>Climatic Parameters</b>				
Rainfall recharge rate	-	ft/yr	0.15	Approximately 15% of average annual rainfall in San Fernando, California (3)
Thickness of aboveground mixing zone	DH	cm	200	Default value (4)
Wind speed above ground surface	V	cm/s	225	Default value (4)
<b>Soil Parameters</b>				
Fraction organic carbon content in soil	$f_{oc}$	-	0.00092	Average of Site-specific vadose zone data (1)
Soil dry bulk density	$\rho_b$	g/cm <sup>3</sup>	1.83	Average of Site-specific vadose zone data (1)
Total soil porosity in vadose zone	n	-	0.354	Average of Site-specific vadose zone data (1)
Volumetric air content in vadose zone	$\theta_a$	-	0.267	Average of Site-specific vadose zone data (1)
Volumetric water content in vadose zone	$\theta_w$	-	0.087	Calculated as $n - \theta_a$
Air-filled soil permeability	$k_v$	cm <sup>2</sup>	$5 \times 10^{-7}$	Average of Site-specific vadose zone data from EKI soil-vapor extraction pilot test
Soil temperature	-	°C	25	Approximately equal to average groundwater temperature at the Site.
<b>Capillary Zone Parameters</b>				
Total soil porosity in capillary zone	$n_c$	-	0.354	Equal to total soil porosity in vadose zone
Volumetric air content in capillary zone	$\theta_{ac}$	-	0.004	Equal to one percent of total porosity
Volumetric water content in capillary zone	$\theta_{wc}$	-	0.350	Calculated as $n - \theta_{ac}$
Thickness of capillary zone	-	cm	17	Default value for Johnson and Ettinger model (2)
<b>Groundwater Parameters</b>				
Depth to groundwater	-	cm	1,829	Equivalent to 60 feet; approximately equal to average depth to groundwater at the Site.
Hydraulic gradient	-	-	0.0007	August 2002 Site-specific data
Hydraulic conductivity	-	cm/s	0.038	Calculated using average of Site-specific vadose zone data
Groundwater velocity	-	ft/yr	80	Calculated from hydraulic gradient and conductivity
Thickness of groundwater mixing zone	-	ft	15	Typical length of screen interval in Site groundwater wells



## Table 24

### ***Physical Parameters Used To Calculate Risk-Based Screening Levels***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

-	not applicable
°C	degrees Celcius
1/hr	per hour
cm	centimeters
cm/s	centimeters per second
cm <sup>2</sup>	square centimeters
DTSC HERD	Department of Toxic Substances Control Human and Ecological Risk Division
ft/yr	feet per year
g/cm-s <sup>2</sup>	grams per centimeter per square second
g/cm <sup>3</sup>	grams per cubic centimeter

#### **Notes**

- (1) PTS Laboratories, Inc. 16, 18, 23, 30, and 31 July 2002. *Physical Properties Data*.
- (2) U.S. EPA. December 2000. User's Guide for the Johnson and Ettinger (1991) *Model for Subsurface Vapor Intrusion Into Buildings (Revised)*.
- (3) Western Regional Climate Center Precipitation Data 1971 - 2000
- (4) U.S. EPA. 1991a. *Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals), Interim*. Office of Solid Waste and Emergency Response. Publication: 9285.7-01B.



**Table 25**  
**Exposure Parameters Used To Calculate Risk-Based Screening Levels**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Parameter	Symbol	Unit	Value	Note/Reference
<b>Averaging Time</b>	AT			
Carcinogens		year	70	U.S. EPA 1991a; Cal/EPA 1992
Non-carcinogens		year	ED	U.S. EPA 1991a; Cal/EPA 1992
<b>Body Weight</b>	BW			
Earthwork construction worker		kg	70	U.S. EPA 1991a; Cal/EPA 1992
Industrial/commercial worker		kg	70	U.S. EPA 1991a; Cal/EPA 1992
Maintenance personnel		kg	70	U.S. EPA 1991a; Cal/EPA 1992
<b>Dermal Absorption Factor</b>	ABS			
Volatile organic compounds			0.1	Cal/EPA 1994
Hexavalent Chromium			0	Cal/EPA 1994
Other metals and cyanide			0.01	Cal/EPA 1994
Semi-volatile organic compounds			0.15	Cal/EPA 1994
<b>Exposure Duration</b>	ED			
Earthwork construction worker		year	0.75	Best professional judgement
Industrial/commercial worker		year	25	U.S. EPA 1991a; Cal/EPA 1992
Maintenance personnel		year	25	U.S. EPA 1991a; Cal/EPA 1992
<b>Exposure Frequency</b>	EF			
Earthwork construction worker		day/year	250	Best professional judgment
Industrial/commercial worker		day/year	250	U.S. EPA 1991a; Cal/EPA 1992
Maintenance personnel				
Performing excavation work		day/year	12	Best professional judgment (1)
Performing non-excavation work		day/year	238	Best professional judgment (1)
<b>Exposure Interval</b>	T			
Earthwork construction worker		s	$2.37 \times 10^7$	Calculated as $ED \times 3.16 \times 10^7 \text{ seconds/year}$
Industrial/commercial worker		--	--	(2)
Maintenance personnel		s	$7.9 \times 10^8$	Calculated as $ED \times 3.16 \times 10^7 \text{ seconds/year}$
<b>Ingestion Rate for Soil</b>	IR <sub>soil</sub>			
Earthwork construction worker		mg/day	480	U.S. EPA 1991b
Industrial/commercial worker		--	--	(2)
Maintenance personnel				
Performing excavation work		mg/day	480	U.S. EPA 1991b; (3)
Performing non-excavation work		mg/day	50	U.S. EPA 1991a; Cal/EPA 1992; (3)



**Table 25**  
**Exposure Parameters Used To Calculate Risk-Based Screening Levels**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Parameter	Symbol	Unit	Value	Note/Reference
<b>Inhalation Rate for Air</b>	$IR_{air}$			
Earthwork construction worker		m <sup>3</sup> /day	20	U.S. EPA 1991a; Cal/EPA 1992
Commercial / industrial worker		m <sup>3</sup> /day	20	U.S. EPA 1991a; Cal/EPA 1992
Maintenance personnel		m <sup>3</sup> /day	20	U.S. EPA 1991a; Cal/EPA 1992
<b>Particulate Emission Factor</b>	PEF			
Earthwork construction worker		m <sup>3</sup> /kg	4.63 x 10 <sup>9</sup>	U.S. EPA 2002
Commercial / industrial worker		--	--	(2)
Maintenance personnel		m <sup>3</sup> /kg	4.63 x 10 <sup>9</sup>	U.S. EPA 2002
<b>Skin Surface Area Exposed to Soil</b>	SA			
Earthwork construction worker		cm <sup>2</sup> /day	3,300	U.S. EPA 2001; (4)
Commercial / industrial worker		--	--	(2)
Maintenance personnel				
Performing excavation work		cm <sup>2</sup> /day	3,300	U.S. EPA 2001; (3), (4)
Performing non-excavation work		cm <sup>2</sup> /day	3,300	U.S. EPA 2001; (3), (4)
<b>Soil-to-Air Volatilization Factor</b>	VF			
Earthwork construction worker		m <sup>3</sup> /kg		Chemical-specific value (5)
Commercial / industrial worker		--	--	(6)
Maintenance personnel		m <sup>3</sup> /kg		Chemical-specific value (5)
<b>Soil-to-Skin Adherence Factor</b>	AF			
Earthwork construction worker		mg/cm <sup>2</sup>	0.3	U.S. EPA 2001; (7)
Commercial / industrial worker		--	--	(2)
Maintenance personnel				
Performing excavation work		mg/cm <sup>2</sup>	0.3	U.S. EPA 2001; (3), (7)
Performing non-excavation work		mg/cm <sup>2</sup>	0.2	U.S. EPA 2001; (3)



## Table 25

### ***Exposure Parameters Used To Calculate Risk-Based Screening Levels***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

cm <sup>2</sup> /day	square centimeters per day
kg	kilograms
m <sup>3</sup> /day	cubic meters per day
m <sup>3</sup> /kg	cubic meters per kilogram
mg/cm <sup>2</sup>	milligrams per square centimeter
mg/day	milligrams per day
s	seconds

#### **Notes**

- (1) Exposure frequency for maintenance personnel is based upon best professional judgement and assumes individual will be engaged in earthwork activities for 12 days per year at the site and will conduct activities that do not involve excavation for 238 days per year at the site.
- (2) Risk-based screening levels for direct contact with soil at the Site were not calculated for industrial/commercial workers. Risk-based screening levels calculated to be protective of earthwork construction workers and maintenance personnel are also believed to be protective of industrial/commercial workers because of their limited direct exposure to contaminated soil.
- (3) Based upon best professional judgment. When maintenance personnel are engaged in earthwork activities, exposure parameters (with the exception of exposure duration) are assumed to be the same as an earthwork construction worker. When maintenance personnel are not engaged in earthwork activities, exposure parameters are assumed to be the same as an industrial/commercial worker.
- (4) Skin surface area calculated based on heads, hands, and forearms, assuming these populations wear clothing consisting of a short-sleeved shirt, long pants, and shoes.
- (5) Soil-to-outdoor-air volatilization factor is chemical-specific. Volatilization factors were calculated using the equation in Section 3.3.1 in U.S. EPA's *Risk Assessment Guidance for Superfund, Part B*, dated December 1991, and input parameters listed in Table 24.
- (6) The soil-to-outdoor-air volatilization factor was not utilized for the industrial/commercial worker. This exposure pathway was modeled using the Johnson and Ettinger model for vapor intrusion into indoor air.
- (7) The soil-to-skin adherence factor for the earthwork construction worker is based on the 95th percentile of the weighted soil adherence factor for construction workers (U.S. EPA, 2001).

#### **References**

- Cal/EPA. July 1992 (corrected and reprinted August 1996). *Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities*, California Environmental Protection Agency, Department of Toxic Substances Control.
- Cal/EPA. 1994 (reprinted June 1999). *Preliminary Endangerment Assessment Guidance Manual*, California Environmental Protection Agency, Department of Toxic Substances Control.
- U.S. EPA. 1991a. *Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)*, Interim. Office of Solid Waste and Emergency Response. Publication: 9285.7-01B.
- U.S. EPA. 25 March 1991b. *Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual, Supplemental Guidance. Standard Default Exposure Factors*. Interim Final. U.S. Environmental Protection Agency, Region IX, October 2002.
- U.S. EPA. September 2001. *Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual – Part E (Supplemental Guidance for Dermal Risk Assessment)*, Interim. Office of Solid Waste and Emergency Response.
- U.S. EPA. 2002. *Preliminary Remediation Goals Tables*, U.S. Environmental Protection Agency, Region IX, October 2002.



**Table 26**  
***Non-Carcinogenic Human Health Toxicity Values***  
***for Chemicals Of Concern***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Chronic Oral Reference Dose (mg/kg-day)	Chronic Inhalation Reference Dose (mg/kg-day)	Potential Health Effect	Reference (1)
<b>VOCs</b>				
<b>Primary VOCs</b>				
Tetrachloroethene	0.01	0.01	Hepatotoxicity, weight gain; Kidney, alimentary system	IRIS (o) OEHHA (i)
1,1,1-trichloroethane	0.28	0.29	Nervous system	PRG (o) OEHHA (i)
Trichloroethene	0.0003	0.17	Liver, kidney, fetus; Nervous system, eyes	NCEA (o) OEHHA (i)
cis-1,2-dichloroethene	0.01	0.01 (2)	Decreased hematocrit and hemoglobin in blood	HEAST (o)
1,1-dichloroethene	0.05	0.02	Liver toxicity; Alimentary system	IRIS (o) OEHHA (i)
<b>Secondary VOCs</b>				
1,1-dichloroethane	0.10 (2)	0.10	--	HEAST (i)
1,2-dichloroethane	0.03	0.11	Alimentary system	PRG (o) OEHHA (i)
trans-1,2-dichloroethene	0.02	0.02 (2)	Increased serum alkaline phosphatase	IRIS (o)
Vinyl Chloride	0.003	0.029	Liver cell polymorphism	IRIS
Bromomethane	0.0014	0.0014	Epithelial hyperplasia of the forestomach; Respiratory system, nervous system, development	IRIS
Chloroform	0.01	0.086	Moderate or marked fatty cyst formation in the liver; Alimentary system, kidney, development	IRIS (o) OEHHA (i)
Trichlorofluoromethane	0.3	0.2	Survival and histopathology	IRIS (o) HEAST (i)



**Table 26**  
***Non-Carcinogenic Human Health Toxicity Values***  
***for Chemicals Of Concern***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Chronic Oral Reference Dose (mg/kg-day)	Chronic Inhalation Reference Dose (mg/kg-day)	Potential Health Effect	Reference (1)
<b>VOCs</b>				
<b>Secondary VOCs</b>				
Benzene	0.003	0.017	Hematopoietic system; development; nervous system	PRG (o) OEHHA (i)
Toluene	0.2	0.086	Changes in liver and kidney weights; Nervous system, respiratory system, development	IRIS (o) OEHHA (i)
Ethylbenzene	0.1	0.57	Liver and kidney toxicity; Development, alimentary system, kidney, endocrine system	IRIS (o) OEHHA (i)
Total Xylenes	2	0.20	Hyperactivity; decreased body weight and increased mortality (males); Nervous system, respiratory system	IRIS (o) OEHHA (i)
<b>Non-VOCs</b>				
<b>Metals and Cyanide</b>				
Chromium (3)	1.5	1.5 (2)	--	IRIS (o)
Hexavalent Chromium	0.003	0.000057	Nasal septum atrophy; Respiratory system	IRIS (o) OEHHA (i)
Copper	0.037 (4)	0.037 (2)	--	HEAST (o)
Lead	--	--	--	--
Nickel	0.02	0.000014	Decreased body and organ weights; Respiratory system, hematopoietic system	IRIS (o) OEHHA (i)
Zinc	0.3	0.3 (2)	Decreased blood enzyme	IRIS (o)
Cyanide	0.02	0.02 (2)	Weight loss, thyroid effects and myelin degeneration	IRIS (o)
<b>Semi-Volatile Organic Compounds</b>				
Chrysene	--	--	--	--
Phenanthrene	0.30	0.30 (2)	--	IRIS (o) (5)
Pyrene	0.03	0.03 (2)	Kidney effects	IRIS (o)



## Table 26

### *Non-Carcinogenic Human Health Toxicity Values for Chemicals Of Concern*

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

--	no information available
HEAST	U.S. EPA Health Effects Assessment Summary Tables, dated July 1997
IRIS	U.S. EPA Integrated Risk Information System, retrieved October 2002
mg/kg-day	milligrams per kilogram per day
NCEA	U.S. EPA National Center for Environmental Assessment, Draft Risk Assessment Issue Papers for individual chemicals
OEHHA	California Environmental Protection Agency Office of Environmental Health Hazard Assessment, Technical Support Document for the Determination of Noncancer Chronic Reference Exposure Levels, updated in September 2002
PRG	U.S. EPA, Region IX Preliminary Remediation Goals Table, dated October 2002
VOC	Volatile organic compound

#### **Notes**

- (1) References are defined above. An "(o)" following the reference abbreviation indicates the source for the oral reference dose. An "(i)" following the reference abbreviation indicates the source for the inhalation reference dose. If no such designation is made, both are from the same source. Toxicity values were obtained from the references in the following order: OEHHA; IRIS; HEAST; NCEA; PRG.
- (2) No reference dose was available for this exposure route; therefore, the reference dose from the other exposure route was used in the calculations (i.e., "route-to-route extrapolation").
- (3) Toxicity values listed are those available for trivalent chromium.
- (4) The reference dose for copper is listed in HEAST as 1.3 milligrams per liter. This dose has been converted to mg/kg-day using a water ingestion rate of 2 liters per day and an assumed average body weight of 70 kilograms.
- (5) No reference dose for phenanthrene was available. At the suggestion of U.S. EPA Superfund Technical Support staff, the reference dose for anthracene was used, which is a structurally similar surrogate compound.



**Table 27**  
***Carcinogenic Human Health Toxicity Values***  
***for Chemicals of Concern***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Oral Slope Factor (mg/kg-day) <sup>-1</sup>	Inhalation Slope Factor (mg/kg-day) <sup>-1</sup>	Weight-of-Evidence Classification (1)	Reference (2)
<b>VOCs</b>				
<b>Primary VOCs</b>				
Tetrachloroethene	0.54	0.15	--	OEHHA
1,1,1-trichloroethane	--	--	D	--
Trichloroethene	0.015	0.010	--	OEHHA
cis-1,2-dichloroethene	--	--	D	--
1,1-dichloroethene	--	--	C	-- (3)
<b>Secondary VOCs</b>				
1,1-dichloroethane	0.0057	0.0057	C	OEHHA
1,2-dichloroethane	0.047	0.072	B2	OEHHA
trans-1,2-dichloroethene	--	--	--	--
Vinyl Chloride	0.27	0.27	A	OEHHA
Bromomethane	--	--	D	--
Chloroform	0.031	0.019	B2	OEHHA
Trichlorofluoromethane	--	--	--	--
Benzene	0.10	0.10	A	OEHHA
Toluene	--	--	D	--
Ethylbenzene	--	--	D	--
Total Xylenes	--	--	D	--
<b>Non-VOCs</b>				
<b>Metals and Cyanide</b>				
Chromium	--	--	--	--
Hexavalent Chromium	-- (4)	510	A	OEHHA
Copper	--	--	D	--
Lead	--	--	--	--
Nickel	--	0.91	A	OEHHA
Zinc	--	--	D	--
Cyanide	--	--	D	--
<b>Semi-Volatile Organic Compounds</b>				
Chrysene	0.12	0.039	B2	OEHHA
Phenanthrene	--	--	D	--
Pyrene	--	--	D	--



## Table 27

### *Carcinogenic Human Health Toxicity Values for Chemicals of Concern*

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

#### Abbreviations

--	no information available
HEAST	U.S. EPA Health Effects Assessment Summary Tables, dated July 1997
IRIS	U.S. EPA Integrated Risk Information System, retrieved October 2002
mg/kg-day	milligrams per kilogram per day
NCEA	U.S. EPA National Center for Environmental Assessment, Draft Risk Assessment Issue Papers for individual chemicals
OEHHA	Office of Environmental Health Hazard Assessment website entitled California Cancer Potency Factors, dated September 2002
PRG	U.S. EPA, Region IX Preliminary Remediation Goals Table, dated October 2002

#### Notes

- (1) U.S. EPA weight-of-evidence classifications are as follows:
 

A	Human Carcinogen
B1	Probable Human Carcinogen; limited human data are available
B2	Probable Human Carcinogen; sufficient evidence in animals and inadequate or no evidence in humans
C	Possible Human Carcinogen
D	Not Classifiable as to Human Carcinogenicity
E	Evidence of Non-Carcinogenicity in Humans

All weight-of-evidence classifications were taken from IRIS.
- (2) References are defined above. Toxicity values were obtained from the references in the following order: OEHHA; IRIS; HEAST; NCEA; PRG.
- (3) A slope factor for 1,1-dichloroethene is provided in HEAST based on an outdated IRIS report. The IRIS report was updated in August 2002 to withdraw the slope factor for 1,1-dichloroethene.
- (4) According to IRIS, no evidence of carcinogenicity of hexavalent chromium exists for the oral route of exposure



**Table 28**

***Leaching Values for Chemicals of Concern in Soil to Protect Groundwater***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Maximum Flux to Groundwater (g/yr/ft <sup>2</sup> ) (1)	Concentration in "Leachate" (mg/L) (2)	Hypothetical Groundwater Concentration (mg/L) (3)	Target Groundwater Concentration (mg/L) (4)	Leaching Value for Protection of Groundwater (mg/kg) (5) (6)
<b>VOCs</b>						
<b>Primary VOCs</b>						
Tetrachloroethene	0 - 3	0.00062	0.15	0.0013	0.005	3.7
	3 - 30	0.051	12	0.11	0.005	0.045
	30 - 60	0.21	50	0.45	0.005	0.011
1,1,1-trichloroethane	0 - 3	0.0013	0.31	0.0029	0.200	69
	3 - 30	0.11	26	0.24	0.200	0.85
	30 - 60	0.44	103	0.95	0.200	0.21
Trichloroethene	0 - 3	0.00081	0.19	0.0018	0.005	2.8
	3 - 30	0.064	15	0.14	0.005	0.036
	30 - 60	0.26	62	0.57	0.005	0.0088
cis-1,2-dichloroethene	0 - 3	0.0012	0.27	0.0025	0.006	2.4
	3 - 30	0.065	15	0.14	0.006	0.043
	30 - 60	0.30	70	0.64	0.006	0.0094
1,1-dichloroethene	0 - 3	0.0021	0.49	0.0045	0.006	1.3
	3 - 30	0.17	40	0.37	0.006	0.016
	30 - 60	0.65	152	1.4	0.006	0.0043
<b>Secondary VOCs</b>						
1,1-dichloroethane	0 - 3	0.0014	0.32	0.0030	0.005	1.7
	3 - 30	0.084	20	0.18	0.005	0.028
	30 - 60	0.37	88	0.8	0.005	0.0062
1,2-dichloroethane	0 - 3	0.0014	0.33	0.0030	0.0005	0.17
	3 - 30	0.029	6.8	0.062	0.0005	0.0080
	30 - 60	0.17	40	0.37	0.0005	0.0014
trans-1,2-dichloroethene	0 - 3	0.0013	0.30	0.0028	0.010	3.6
	3 - 30	0.097	23	0.21	0.010	0.048
	30 - 60	0.37	88	0.8	0.010	0.012
Vinyl Chloride	0 - 3	0.0026	0.61	0.0056	0.0005	0.089
	3 - 30	0.21	49	0.45	0.0005	0.0011
	30 - 60	0.78	183	1.7	0.0005	0.00030
Bromomethane	0 - 3	0.0016	0.39	0.0035	0.0087 (7)	2.5
	3 - 30	0.11	26	0.24	0.0087 (7)	0.037
	30 - 60	0.48	112	1.0	0.0087 (7)	0.0085
Chloroform	0 - 3	0.0012	0.27	0.0025	0.080 (8)	32
	3 - 30	0.065	15	0.14	0.080 (8)	0.57
	30 - 60	0.28	65	0.60	0.080 (8)	0.13
Trichlorofluoromethane	0 - 3	0.00090	0.21	0.0020	0.150	77
	3 - 30	0.073	17	0.16	0.150	0.96
	30 - 60	0.58	136	1.2	0.150	0.12



**Table 28*****Leaching Values for Chemicals of Concern in Soil to Protect Groundwater***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Maximum Flux to Groundwater (g/yr/ft <sup>2</sup> ) (1)	Concentration in "Leachate" (mg/L) (2)	Hypothetical Groundwater Concentration (mg/L) (3)	Target Groundwater Concentration (mg/L) (4)	Leaching Value for Protection of Groundwater (mg/kg) (5) (6)
<b>VOCs</b>						
<b>Secondary VOCs</b>						
Benzene	0 - 3	0.0011	0.25	0.0023	0.001	0.43
	3 - 30	0.072	17	0.16	0.001	0.0064
	30 - 60	0.30	71	0.65	0.001	0.0015
Toluene	0 - 3	0.00060	0.14	0.0013	0.150	120
	3 - 30	0.044	10	0.10	0.150	1.6
	30 - 60	0.18	43	0.40	0.150	0.38
Ethylbenzene	0 - 3	0.00038	0.089	0.00082	0.700	850
	3 - 30	0.029	6.9	0.063	0.700	11
	30 - 60	0.12	29	0.27	0.700	2.6
Total Xylenes	0 - 3	0.00036	0.084	0.00077	1.750	2,300
	3 - 30	0.027	6.4	0.059	1.750	30
	30 - 60	0.11	27	0.25	1.750	7.1
<b>Non-VOCs</b>						
<b>Petroleum Hydrocarbons</b>						
Total Extractable Petroleum Hydrocarbons	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)
<b>Metals and Cyanide</b>						
Chromium	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)
Hexavalent Chromium	0 - 3	0.011 (10)	2.7	0.0066	0.050 (11)	7.6
	3 - 30	0.079 (10)	19	0.046	0.050 (11)	1.1
	30 - 60	0.086 (10)	20	0.051	0.050 (11)	0.99
Copper	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)
Lead	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)
Nickel	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)
Zinc	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)
Cyanide	0 - 3	--	--	--	--	-- (9)
	3 - 30	--	--	--	--	-- (9)
	30 - 60	--	--	--	--	-- (9)



**Table 28*****Leaching Values for Chemicals of Concern in Soil to Protect Groundwater***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Maximum Flux to Groundwater (g/yr/ft <sup>2</sup> ) (1)	Concentration in "Leachate" (mg/L) (2)	Hypothetical Groundwater Concentration (mg/L) (3)	Target Groundwater Concentration (mg/L) (4)	Leaching Value for Protection of Groundwater (mg/kg) (5) (6)
<b>Non-VOCs</b>						
<b>Semi-Volatile Organic Compounds</b>						
Chrysene	0 - 3	0.0000000021	0.00000050	0.000000005	0.009 (7)	2,000,000
	3 - 30	0.00000020	0.000047	0.0000004	0.009 (7)	21,000
	30 - 60	0.000013	0.0030	0.000028	0.009 (7)	330
Phenanthrene	0 - 3	0.0000000069	0.0000016	0.000000015	1.800 (12)	120,000,000
	3 - 30	0.00000052	0.00012	0.0000011	1.800 (12)	1,600,000
	30 - 60	0.000028	0.0066	0.000060	1.800 (12)	30,000
Pyrene	0 - 3	0.0000000011	0.00000025	0.0000000023	0.183 (7)	79,000,000
	3 - 30	0.00000010	0.000023	0.00000021	0.183 (7)	880,000
	30 - 60	0.000045	0.010	0.00010	0.183 (7)	1,900



## Table 28

### *Leaching Values for Chemicals of Concern in Soil to Protect Groundwater*

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

#### **Abbreviations**

ft bgs	feet below ground surface
g/yr-ft <sup>2</sup>	grams per year per square foot
mg/kg	milligrams per kilogram
mg/L	milligrams per liter

#### **Notes:**

- (1) VLEACH Version 2.2 vadose zone leaching model was used to estimate the maximum flux of the chemical of concern to groundwater over the next 100 years. The flux is based on a source area of 4,000 square feet that extends across the entire depth range (e.g., 0 - 3 ft bgs) and a depth to groundwater of 60 ft bgs. This area is assumed to be typical of an area of possible chemical release at the Site. A hypothetical chemical of concern concentration of 1 mg/kg in soil was used for the VLEACH runs.
- (2) Concentration in leachate represents the concentration of the chemical of concern leaching from the vadose zone into the groundwater mixing zone (equivalent to the flux into groundwater multiplied by the recharge rate).
- (3) Hypothetical concentration of the chemical of concern in groundwater resulting from a hypothetical chemical of concern concentration of 1 mg/kg of the chemical in soil.
- (4) The target groundwater concentration is established as the State of California Maximum Contaminant Level, unless otherwise indicated.
- (5) Calculated chemical of concern concentration in soil that will maintain chemical of concern concentrations in groundwater beneath the source area at or below the target groundwater concentration indicated.
- (6) These leaching values do not take into account possible recontamination of soil from volatile organic compounds volatilizing from groundwater. Volatile organic compounds may be migrating in groundwater onto the Price Pfister property as a result of chemical releases at Holchem or potentially other nearby facilities. Attainment of leaching values may not be feasible given regional groundwater contamination.
- (7) No Maximum Contaminant Level exists for this compound. Leaching values were calculated to maintain chemical concentrations in the groundwater at or below the U.S. EPA Region IX Preliminary Remediation Goal for tap water.
- (8) No California Maximum Contaminant Level exists for this chemical. Leaching values were calculated to maintain chemical concentrations in the groundwater at or below the U.S. EPA Maximum Contaminant Level.
- (9) Other than hexavalent chromium, leaching values were not calculated for metals, petroleum hydrocarbons, or semi-volatile organic compounds at the Site because these chemicals of concern are not prone to leaching to groundwater.
- (9) The cross-sectional area of the modeled hexavalent chromium source in soil was arbitrarily assumed to be 400 square feet because hexavalent chromium is detected only sporadically in soil and no significant source area has been identified.
- (11) No Maximum Contaminant Level exists for hexavalent chromium. The Maximum Contaminant Level for total chromium was used as the target groundwater concentration because it is lower than the U.S. EPA Region IX Preliminary Remediation Goal for hexavalent chromium of 0.110 mg/L.
- (12) No Maximum Contaminant Level or U.S. EPA Region IX Preliminary Remediation Goal for tap water exists for this compound. Leaching values were calculated to maintain chemical of concern concentrations in the groundwater at or below the U.S. EPA Region IX Preliminary Remediation Goal for tap water for anthracene, a structurally similar surrogate compound.



**Table 29**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil to Protect**  
**Industrial/Commercial Workers (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Vapor Intrusion (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
VOCs			
Primary VOCs			
Tetrachloroethene	0 - 3	20	0.28
	3 - 30	2.3	0.031
	30 - 60	2.0	0.028
1,1,1-trichloroethane	0 - 3	580	-- (3)
	3 - 30	65	-- (3)
	30 - 60	58	-- (3)
Trichloroethene	0 - 3	350	0.82
	3 - 30	39	0.091
	30 - 60	35	0.082
cis-1,2-dichloroethene	0 - 3	20	-- (3)
	3 - 30	2.3	-- (3)
	30 - 60	2.0	-- (3)
1,1-dichloroethene	0 - 3	41	-- (3)
	3 - 30	4.5	-- (3)
	30 - 60	4.1	-- (3)
Secondary VOCs			
1,1-dichloroethane	0 - 3	200	1.0
	3 - 30	23	0.11
	30 - 60	20	0.10
1,2-dichloroethane	0 - 3	230	0.078
	3 - 30	26	0.0086
	30 - 60	23	0.0078
trans-1,2-dichloroethene	0 - 3	41	-- (3)
	3 - 30	4.5	-- (3)
	30 - 60	4.1	-- (3)
Vinyl Chloride	0 - 3	58	0.021
	3 - 30	6.5	0.0023
	30 - 60	5.8	0.0021
Bromomethane	0 - 3	2.9	-- (3)
	3 - 30	0.32	-- (3)
	30 - 60	0.29	-- (3)
Chloroform	0 - 3	170	0.31
	3 - 30	19	0.034
	30 - 60	17	0.031



**Table 29**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil to Protect**  
**Industrial/Commercial Workers (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Vapor Intrusion (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
VOCs			
Secondary VOCs			
Trichlorofluoromethane	0 - 3	410	-- (3)
	3 - 30	45	-- (3)
	30 - 60	41	-- (3)
Benzene	0 - 3	35	0.057
	3 - 30	3.9	0.0064
	30 - 60	3.5	0.0057
Toluene	0 - 3	170	-- (3)
	3 - 30	19	-- (3)
	30 - 60	17	-- (3)
Ethylbenzene	0 - 3	1200	-- (3)
	3 - 30	130	-- (3)
	30 - 60	120	-- (3)
Total Xylenes	0 - 3	410 (4)	-- (3)
	3 - 30	45 (4)	-- (3)
	30 - 60	41 (4)	-- (3)
Non-VOCs			
Metals and Cyanide			
Chromium	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--
Hexavalent Chromium	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--
Copper	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--
Lead	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--
Nickel	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--



**Table 29**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil to Protect**  
**Industrial/Commercial Workers (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Vapor Intrusion (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
Non-VOCs			
Metals and Cyanide			
Zinc	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--
Cyanide	0 - 3	--	--
	3 - 30	--	--
	30 - 60	--	--
Semi-Volatile Organic Compounds			
Chrysene	0 - 3	-- (5)	15
	3 - 30	-- (5)	110
	30 - 60	-- (5)	940
Phenanthrene	0 - 3	74,000	-- (3)
	3 - 30	280,000	-- (3)
	30 - 60	2,100,000	-- (3)
Pyrene	0 - 3	14,000	-- (3)
	3 - 30	96,000	-- (3)
	30 - 60	840,000	-- (3)



**Table 29**  
***Site-Specific Risk-Based Screening Levels***  
***For Chemicals of Concern in Soil to Protect***  
***Industrial/Commercial Workers (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

--	not calculated
mg/kg	milligrams per kilogram
VOC	Volatile organic compound

**Notes:**

- (1) Human health toxicity values and physical exposure parameters used in calculating screening levels are summarized in Tables 24 through 27. Risk-based screening levels assume a non-carcinogenic target risk level that corresponds to a hazard index of 1 for an individual chemical and a carcinogenic target risk level of one-in-one million (i.e.,  $10^{-6}$ ) incremental risk of an individual developing cancer from exposure to an individual chemical.
- (2) These soil screening levels have been calculated through use of U.S. EPA Johnson and Ettinger vapor intrusion computer model. Risk-based screening levels for vapor intrusion were calculated only for those compounds considered to be volatile. Volatile compounds are defined to be chemicals that have Henry's Law constants greater than  $10^{-5}$  atmospheres-cubic meters per mole and molecular weights less than 200 grams per mole.
- (3) U.S. EPA and California Environmental Protection Agency Office of Environmental Health Hazard Assessment do not classify compound as a potential carcinogen.
- (4) The screening level listed in this table is the most conservative of the values calculated for the three xylene isomers.
- (5) No published chronic reference dose is available for this compound, and no suitable surrogate compound was identified.



**Table 30**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil**  
**to Protect Earthwork Construction Workers (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Direct Contact (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
VOCs			
Primary VOCs			
Tetrachloroethene	0 - 3	18	1.1
	3 - 30	18	1.1
	30 - 60	18	1.1
1,1,1-trichloroethane	0 - 3	290	-- (3)
	3 - 30	290	-- (3)
	30 - 60	290	-- (3)
Trichloroethene	0 - 3	43	0.72
	3 - 30	43	0.72
	30 - 60	43	0.72
cis-1,2-dichloroethene	0 - 3	16	-- (3)
	3 - 30	16	-- (3)
	30 - 60	16	-- (3)
1,1-dichloroethene	0 - 3	16	-- (3)
	3 - 30	16	-- (3)
	30 - 60	16	-- (3)
Secondary VOCs			
1,1-dichloroethane	0 - 3	130	22
	3 - 30	130	22
	30 - 60	130	22
1,2-dichloroethane	0 - 3	200	2.5
	3 - 30	200	2.5
	30 - 60	200	2.5
trans-1,2-dichloroethene	0 - 3	22	-- (3)
	3 - 30	22	-- (3)
	30 - 60	22	-- (3)
Vinyl Chloride	0 - 3	19	0.23
	3 - 30	19	0.23
	30 - 60	19	0.23
Bromomethane	0 - 3	1.4	-- (3)
	3 - 30	1.4	-- (3)
	30 - 60	1.4	-- (3)
Chloroform	0 - 3	140	8.7
	3 - 30	140	8.7
	30 - 60	140	8.7



**Table 30**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil**  
**to Protect Earthwork Construction Workers (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Direct Contact (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
VOCs			
Secondary VOCs			
Trichlorofluoromethane	0 - 3	290	-- (3)
	3 - 30	290	-- (3)
	30 - 60	290	-- (3)
Benzene	0 - 3	20	1.2
	3 - 30	20	1.2
	30 - 60	20	1.2
Toluene	0 - 3	160	-- (3)
	3 - 30	160	-- (3)
	30 - 60	160	-- (3)
Ethylbenzene	0 - 3	1,200	-- (3)
	3 - 30	1,200	-- (3)
	30 - 60	1,200	-- (3)
Total Xylenes	0 - 3	360	-- (3)
	3 - 30	360	-- (3)
	30 - 60	360	-- (3)
Non-VOCs			
Metals and Cyanide			
Chromium	0 - 3	4,400	3,000
	3 - 30	4,400	3,000
	30 - 60	4,400	3,000
Hexavalent Chromium	0 - 3	640	430
	3 - 30	640	430
	30 - 60	640	430
Copper	0 - 3	7,700	-- (3)
	3 - 30	7,700	-- (3)
	30 - 60	7,700	-- (3)
Lead	0 - 3	740 (4)	--
	3 - 30	740 (4)	--
	30 - 60	740 (4)	--
Nickel	0 - 3	3,700	240,000
	3 - 30	3,700	240,000
	30 - 60	3,700	240,000



**Table 30**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil**  
**to Protect Earthwork Construction Workers (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Direct Contact (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
Non-VOCs			
Metals and Cyanide			
Zinc	0 - 3	63,000	-- (3)
	3 - 30	63,000	-- (3)
	30 - 60	63,000	-- (3)
Cyanide	0 - 3	4,200	-- (3)
	3 - 30	4,200	-- (3)
	30 - 60	4,200	-- (3)
Semi-Volatile Organic Compounds			
Chrysene	0 - 3	-- (5)	130
	3 - 30	-- (5)	130
	30 - 60	-- (5)	130
Phenanthrene	0 - 3	37,000	-- (3)
	3 - 30	37,000	-- (3)
	30 - 60	37,000	-- (3)
Pyrene	0 - 3	4,300	-- (3)
	3 - 30	4,300	-- (3)
	30 - 60	4,300	-- (3)

**Abbreviations**

-- not calculated  
mg/kg milligrams per kilogram  
VOC Volatile organic compound

**Notes:**

- (1) Human health toxicity values and physical exposure parameters used in calculating screening levels are summarized in Tables 24 through 27. Risk-based screening levels assume a non-carcinogenic target risk level that corresponds to a hazard index of 1 for an individual chemical and a carcinogenic target risk level of one-in-one million (i.e., 10<sup>-6</sup>) incremental risk of an individual developing cancer from exposure to an individual chemical.
- (2) These soil screening levels have been calculated through use of equations presented in Section 12.2.4.2.1 of this report.
- (3) U.S. EPA and California Environmental Protection Agency Office of Environmental Health Hazard Assessment do not classify compound as a potential carcinogen.
- (4) Risk-based screening level for lead calculated using DTSC Lead Spread Version 7.0 computer model.
- (5) No published chronic reference dose is available for this compound, and no suitable surrogate compound was identified.



**Table 31**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil**  
**to Protect Maintenance Personnel (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Direct Contact (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
VOCs			
Primary VOCs			
Tetrachloroethene	0 - 3	100	0.18
	3 - 30	100	0.18
	30 - 60	100	0.18
1,1,1-trichloroethane	0 - 3	1,700	-- (3)
	3 - 30	1,700	-- (3)
	30 - 60	1,700	-- (3)
Trichloroethene	0 - 3	190	2.1
	3 - 30	190	2.1
	30 - 60	190	2.1
cis-1,2-dichloroethene	0 - 3	91	-- (3)
	3 - 30	91	-- (3)
	30 - 60	91	-- (3)
1,1-dichloroethene	0 - 3	99	-- (3)
	3 - 30	99	-- (3)
	30 - 60	99	-- (3)
Secondary VOCs			
1,1-dichloroethane	0 - 3	770	3.8
	3 - 30	770	3.8
	30 - 60	770	3.8
1,2-dichloroethane	0 - 3	1,200	0.43
	3 - 30	1,200	0.43
	30 - 60	1,200	0.43
trans-1,2-dichloroethene	0 - 3	120	-- (3)
	3 - 30	120	-- (3)
	30 - 60	120	-- (3)
Vinyl Chloride	0 - 3	110	0.040
	3 - 30	110	0.040
	30 - 60	110	0.040
Bromomethane	0 - 3	8.3	-- (3)
	3 - 30	8.3	-- (3)
	30 - 60	8.3	-- (3)
Chloroform	0 - 3	790	1.5
	3 - 30	790	1.5
	30 - 60	790	1.5



**Table 31**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil**  
**to Protect Maintenance Personnel (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Direct Contact (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
VOCs			
Secondary VOCs			
Trichlorofluoromethane	0 - 3	1,700	-- (3)
	3 - 30	1,700	-- (3)
	30 - 60	1,700	-- (3)
Benzene	0 - 3	120	0.20
	3 - 30	120	0.20
	30 - 60	120	0.20
Toluene	0 - 3	950	-- (3)
	3 - 30	950	-- (3)
	30 - 60	950	-- (3)
Ethylbenzene	0 - 3	7,000	-- (3)
	3 - 30	7,000	-- (3)
	30 - 60	7,000	-- (3)
Total Xylenes	0 - 3	2,100	-- (3)
	3 - 30	2,100	-- (3)
	30 - 60	2,100	-- (3)
Non-VOCs			
Metals and Cyanide			
Chromium	0 - 3	26,000	1,900
	3 - 30	26,000	1,900
	30 - 60	26,000	1,900
Hexavalent Chromium	0 - 3	3,800	270
	3 - 30	3,800	270
	30 - 60	3,800	270
Copper	0 - 3	49,000	-- (3)
	3 - 30	49,000	-- (3)
	30 - 60	49,000	-- (3)
Lead	0 - 3	740 (4)	--
	3 - 30	740 (4)	--
	30 - 60	740 (4)	--
Nickel	0 - 3	15,000	7,300
	3 - 30	15,000	7,300
	30 - 60	15,000	7,300



**Table 31**  
**Site-Specific Risk-Based Screening Levels**  
**For Chemicals of Concern in Soil**  
**to Protect Maintenance Personnel (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Direct Contact (2)	
		RBSL <sub>nc</sub> Non-Carcinogenic Screening Level at HI = 1 (mg/kg)	RBSL <sub>c</sub> Carcinogenic Screening Level at Risk = 10 <sup>-6</sup> (mg/kg)
Non-VOCs			
Metals and Cyanide			
Zinc	0 - 3	400,000	-- (3)
	3 - 30	400,000	-- (3)
	30 - 60	400,000	-- (3)
Cyanide	0 - 3	24,000	-- (3)
	3 - 30	24,000	-- (3)
	30 - 60	24,000	-- (3)
Semi-Volatile Organic Compounds			
Chrysene	0 - 3	-- (6)	14
	3 - 30	-- (6)	14
	30 - 60	-- (6)	14
Phenanthrene	0 - 3	150,000	-- (3)
	3 - 30	150,000	-- (3)
	30 - 60	150,000	-- (3)
Pyrene	0 - 3	16,000	-- (3)
	3 - 30	16,000	-- (3)
	30 - 60	16,000	-- (3)

**Abbreviations**

-- not calculated  
mg/kg milligrams per kilogram  
VOC Volatile organic compound

**Notes:**

- (1) Human health toxicity values and physical exposure parameters used in calculating screening levels are summarized in Tables 24 through 27. Risk-based screening levels assume a non-carcinogenic target risk level that corresponds to a hazard index of 1 for an individual chemical and a carcinogenic target risk level of one-in-one million (i.e., 10<sup>-6</sup>) incremental risk of an individual developing cancer from exposure to an individual chemical.
- (2) These soil screening levels have been calculated through use of equations presented in Section 12.2.4.2.1 of this report.
- (3) U.S. EPA and California Environmental Protection Agency Office of Environmental Health Hazard Assessment do not classify compound as a potential carcinogen.
- (4) Risk-based screening level for lead calculated using DTSC Lead Spread Version 7.0 computer model.
- (5) No published chronic reference dose is available for this compound, and no suitable surrogate compound was identified.



**Table 32**  
**Summary of Site-Specific Leaching Values and Risk-Based**  
**Screening Levels for Chemicals of Concern in Soil (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Leaching Values for Protection of Groundwater (2) (3) (4)		Risk-Based Screening Levels for Protection of Human Health (4)			
		Soil (mg/kg)	Soil Gas (µg/L)	Direct Contact (5)		Vapor Intrusion (6)	
				Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)
VOCs							
Primary VOCs							
Tetrachloroethene	0 - 3	3.7	5,200	0.18	250	0.28	380
	3 - 30	0.045	63	0.18	250	0.031	43
	30 - 60	0.011	15	0.18	250	0.028	38
1,1,1-trichloroethane	0 - 3	69	89,000	290	370,000	350 (7)	450,000
	3 - 30	0.85	1,100	290	370,000	65	83,000
	30 - 60	0.21	270	290	370,000	58	75,000
Trichloroethene	0 - 3	2.8	4,700	0.72	1,200	0.82	1,300
	3 - 30	0.036	60	0.72	1,200	0.091	150
	30 - 60	0.0088	14	0.72	1,200	0.082	130
cis-1,2-dichloroethene	0 - 3	2.4	4,100	16	27,000	20	35,000
	3 - 30	0.043	73	16	27,000	2.3	3,900
	30 - 60	0.0094	16	16	27,000	2.0	3,500
1,1-dichloroethene	0 - 3	1.3	5,500	16	65,000	41	170,000
	3 - 30	0.016	68	16	65,000	4.5	19,000
	30 - 60	0.0043	18	16	65,000	4.1	17,000
Secondary VOCs							
1,1-dichloroethane	0 - 3	1.7	3,800	3.8	8,400	1.0	2,200
	3 - 30	0.028	61	3.8	8,400	0.11	250
	30 - 60	0.0062	14	3.8	8,400	0.10	220
1,2-dichloroethane	0 - 3	0.17	370	0.43	950	0.078	170
	3 - 30	0.0080	18	0.43	950	0.0086	19
	30 - 60	0.0014	3.0	0.43	950	0.0078	17
trans-1,2-dichloroethene	0 - 3	3.6	9,500	22	56,000	41	110,000
	3 - 30	0.048	120	22	56,000	4.5	12,000
	30 - 60	0.012	33	22	56,000	4.1	11,000
Vinyl Chloride	0 - 3	0.089	430	0.040	200	0.021	100
	3 - 30	0.0011	5.4	0.040	200	0.0023	10
	30 - 60	0.00030	1.5	0.040	200	0.0021	10
Bromomethane	0 - 3	2.5	7,100	1.4	4,200	2.9	8,400
	3 - 30	0.037	110	1.4	4,200	0.32	940
	30 - 60	0.0085	25	1.4	4,200	0.29	840
Chloroform	0 - 3	32	48,000	1.5	2,300	0.31	470
	3 - 30	0.57	860	1.5	2,300	0.034	52
	30 - 60	0.13	200	1.5	2,300	0.031	47
Trichlorofluoromethane	0 - 3	77	98,000	240 (7)	310,000	240 (7)	310,000
	3 - 30	0.96	1,200	240 (7)	310,000	45	58,000
	30 - 60	0.12	150	240 (7)	310,000	41	52,000



**Table 32**  
**Summary of Site-Specific Leaching Values and Risk-Based**  
**Screening Levels for Chemicals of Concern in Soil (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Leaching Values for Protection of Groundwater (2) (3) (4)		Risk-Based Screening Levels for Protection of Human Health (4)			
		Soil (mg/kg)	Soil Gas (µg/L)	Direct Contact (5)		Vapor Intrusion (6)	
				Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)
VOCs							
Secondary VOCs							
Benzene	0 - 3	0.43	770	0.20	350	0.057	101
	3 - 30	0.0064	11	0.20	350	0.0064	11
	30 - 60	0.0015	2.7	0.20	350	0.0057	10
Toluene	0 - 3	120	130,000	160	180,000	170	190,000
	3 - 30	1.6	1,700	160	180,000	19	21,000
	30 - 60	0.38	420	160	180,000	17	19,000
Ethylbenzene	0 - 3	52 (7)	40,000	52 (7)	40,000	52 (7)	40,000
	3 - 30	11	8,500	52 (7)	40,000	52 (7)	40,000
	30 - 60	2.6	2,000	52 (7)	40,000	52 (7)	40,000
Total Xylenes	0 - 3	58 (7)	1,200,000	58 (7)	30,000	58 (7)	210,000
	3 - 30	30	16,000	58 (7)	30,000	45	24,000
	30 - 60	7.1	3,700	58 (7)	30,000	41	21,000
Non-VOCs							
Petroleum Hydrocarbons							
Total Extractable Petroleum Hydrocarbons	0 - 3	--	--	1,000 (8)	--	--	--
	3 - 30	--	--	1,000 (8)	--	--	--
	30 - 60	--	--	1,000 (8)	--	--	--
Metals and Cyanide							
Chromium	0 - 3	--	--	1,900	--	--	--
	3 - 30	--	--	1,900	--	--	--
	30 - 60	--	--	1,900	--	--	--
Hexavalent Chromium	0 - 3	7.6	--	270	--	--	--
	3 - 30	1.1	--	270	--	--	--
	30 - 60	0.99	--	270	--	--	--
Copper	0 - 3	--	--	7,700	--	--	--
	3 - 30	--	--	7,700	--	--	--
	30 - 60	--	--	7,700	--	--	--
Lead	0 - 3	--	--	740 (9)	--	--	--
	3 - 30	--	--	740 (9)	--	--	--
	30 - 60	--	--	740 (9)	--	--	--
Nickel	0 - 3	--	--	3,700	--	--	--
	3 - 30	--	--	3,700	--	--	--
	30 - 60	--	--	3,700	--	--	--
Zinc	0 - 3	--	--	63,000	--	--	--
	3 - 30	--	--	63,000	--	--	--
	30 - 60	--	--	63,000	--	--	--



**Table 32**  
**Summary of Site-Specific Leaching Values and Risk-Based**  
**Screening Levels for Chemicals of Concern in Soil (1)**

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

Chemical of Concern	Depth (ft bgs)	Leaching Values for Protection of Groundwater (2) (3) (4)		Risk-Based Screening Levels for Protection of Human Health (4)			
				Direct Contact (5)		Vapor Intrusion (6)	
		Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)	Soil (mg/kg)	Soil Gas (µg/L)
Non-VOCs							
Metals and Cyanide							
Cyanide	0 - 3	--	--	4,200	--	--	--
	3 - 30	--	--	4,200	--	--	--
	30 - 60	--	--	4,200	--	--	--
Semi-Volatile Organic Compounds							
Chrysene	0 - 10	1,000,000	11,000	14	0.15	15	0.16
	10 - 35	21,000	220	14	0.15	110	1.2
	35 - 60	330	3.5	14	0.15	940	10
Phenanthrene	0 - 10	1,000,000	8,600	37,000	320	74,000	640
	10 - 35	1,000,000	8,600	37,000	320	280,000	2,400
	35 - 60	30,000	260	37,000	320	1,000,000	8,600
Pyrene	0 - 10	1,000,000	4,700	4,300	20	14,000	66
	10 - 35	880,000	4,100	4,300	20	96,000	450
	35 - 60	1,900	8.9	4,300	20	840,000	3,900



**Table 32**  
***Summary of Site-Specific Leaching Values and Risk-Based  
Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

**Abbreviations**

--	not calculated
ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
µg/L	micrograms per liter
RBSL	Risk-based screening level
VOC	Volatile organic compound

**Notes**

- (1) Human health toxicity values and physical exposure parameters used in calculating leaching values and RBSLs are summarized in Tables 24 through 27. RBSLs assume a non-carcinogenic target risk level that corresponds to a hazard index of 1 for an individual chemical and a carcinogenic target risk level of one-in-one million (i.e.,  $10^{-6}$ ) incremental risk of an individual developing cancer from exposure to an individual chemical.
- (2) Leaching values were calculated through use of U.S. EPA VLEACH vadose zone leaching computer model to maintain chemical concentrations in groundwater beneath an area of 4,000 square feet at or below Maximum Contaminant Levels, unless otherwise noted. This area is assumed to be typical of an area of possible chemical release at the Site. The soil concentration indicated is the lower of either the remediation goal calculated in Table 28 or the estimated soil saturation concentration. The soil gas concentration indicated is that calculated to be in equilibrium with the given soil concentration.
- (3) Leaching values do not take into account possible recontamination of soil from VOCs volatilizing from groundwater. VOCs may be migrating in groundwater onto the Price Pfister property as a result of chemical releases at Holchem or potentially other nearby facilities. Attainment of leaching values may not be feasible given regional groundwater contamination.
- (4) Certain leaching values or RBSLs might be below the range of typical analytical method reporting limits for VOCs and hexavalent chromium. In such cases, the leaching values and RBSLs may be the desirable cleanup levels, but attainment can only be determined at the standard analytical method reporting limits. Actual analytical method reporting limits determining attainment with remedial action objectives will be established at the time of confirmation sampling and will consider such factors as whether matrix interferences exist in the samples that necessitate raising the standard analytical method reporting limits.
- (5) These RBSLs have been calculated through use of equations presented in Section 12.2.4.2.1 of this report. The soil concentration indicated for each chemical is the lowest of the goals calculated for each of the potentially exposed populations at the Site presented in Tables 30 and 31 and the estimated soil saturation concentration. The soil gas concentration indicated for volatile compounds is that calculated to be in equilibrium with the given soil concentration.
- (6) These RBSLs have been calculated through use of U.S. EPA Johnson and Ettinger vapor intrusion computer model. RBSLs for vapor intrusion were calculated only for those compounds considered to be volatile. Volatile compounds are defined to be chemicals that have Henry's Law constants greater than  $10^{-5}$  atmospheres-cubic meters per mole and molecular weights less than 200 grams per mole. The soil concentration listed is the lowest of the remediation goals presented in Table 29 and the estimated soil saturation concentration. The soil gas concentration indicated for VOCs and semi-volatile organic compounds is that calculated to be in equilibrium with the concentration of chemical in soil calculated to be protective of all potentially exposed populations at the Site.



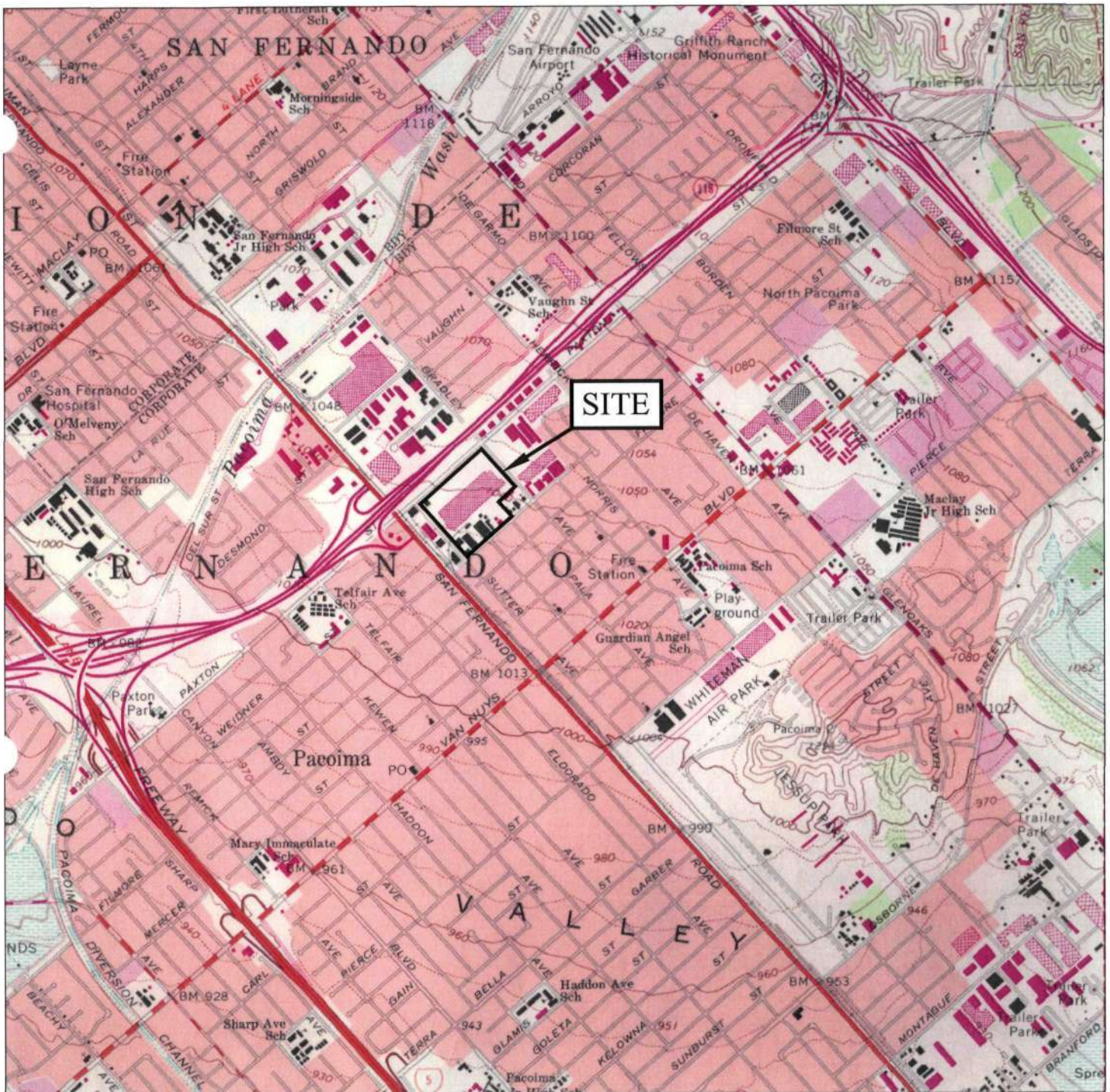
**Table 32**  
***Summary of Site-Specific Leaching Values and Risk-Based  
Screening Levels for Chemicals of Concern in Soil (1)***

Price Pfister Inc., 13500 Paxton Street, Pacoima, California

**Notes**

- (7) The soil concentration indicated is the soil saturation concentration because it was lower than the calculated leaching value or RBSL. Soil saturation concentration for COCs are calculated using the equation from U.S. EPA, 1 November 2000, Region 9 Preliminary Remediation Goals (PRGs) 1999 Memorandum from Stanford J. Smucker, Ph.D., Regional Toxicologist (SFD-8-B), Technical Support Team. Values of site-specific physical parameters used to calculate soil saturation concentrations are summarized in Table 24.
- (8) Because no published toxicity values exist for petroleum hydrocarbons, the direct contact RBSL for petroleum hydrocarbons is assumed equivalent to the Soil Screening Level of 1,000 mg/kg established by the Regional Water Quality Control Board, Los Angeles Region for petroleum hydrocarbons with carbon chain lengths of C<sub>13</sub> to C<sub>22</sub> in soil that is 20 to 150 feet above the groundwater surface.
- (9) RBSL for lead calculated using DTSC Lead Spread Version 7.0 computer model.





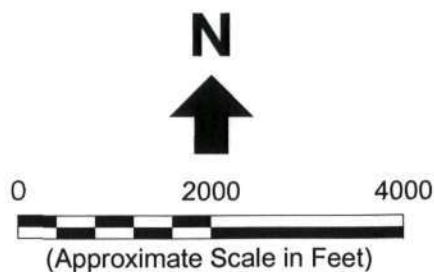
Reference: U.S.G.S. 7.5 Minute Series Topographic Map,  
"San Fernando" Quadrangle, 1966 photorevised 1988.

**Note:**

1. All locations are approximate.

**Erler &  
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Site Vicinity Map



Price Pfister, Inc.  
Pacoima, California

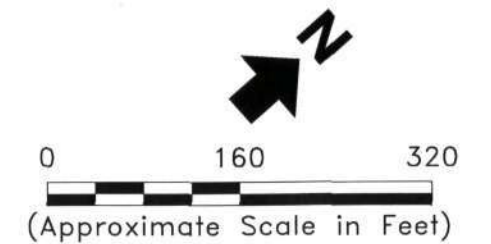
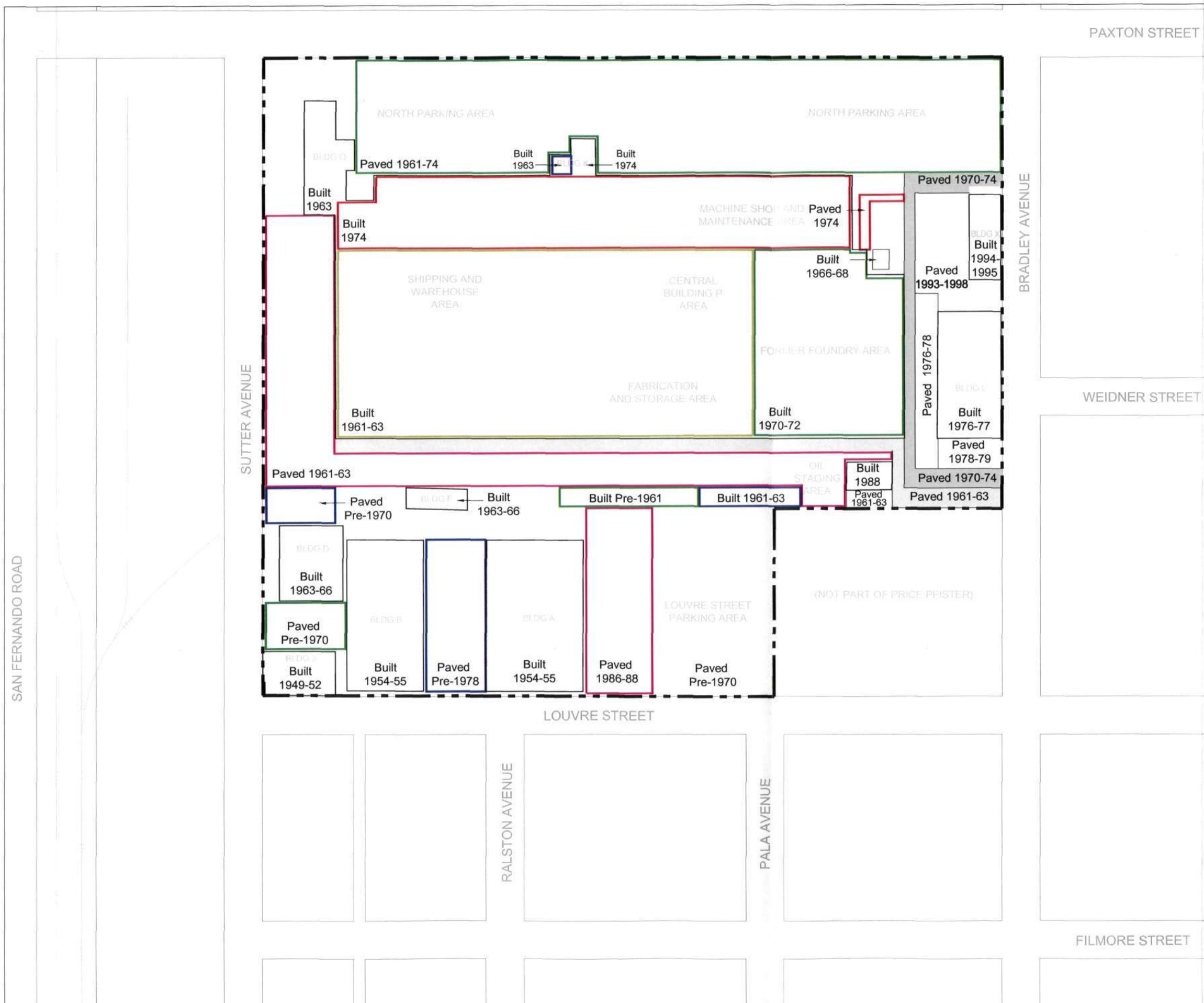
February 2003  
A20034.03

Figure 1



[Insert oversized map: **Figure 2, Site Plan Showing Historical Features**  
– dated April 2008]





**Legend:**

--- Approximate Property Boundary

**Notes:**

1. All locations are approximate.
2. Building construction and paving history is based upon review of available historical aerial photographs and architectural drawings.
3. Where a range of years is posted, actual year of building construction or paving is uncertain and building construction or paving can only be estimated to have occurred within the range of years posted.

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Building Construction and  
Paving History

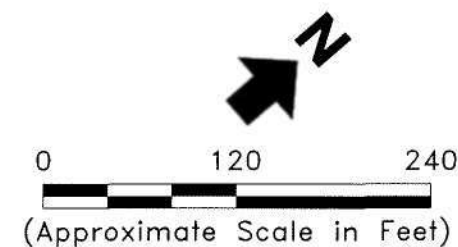
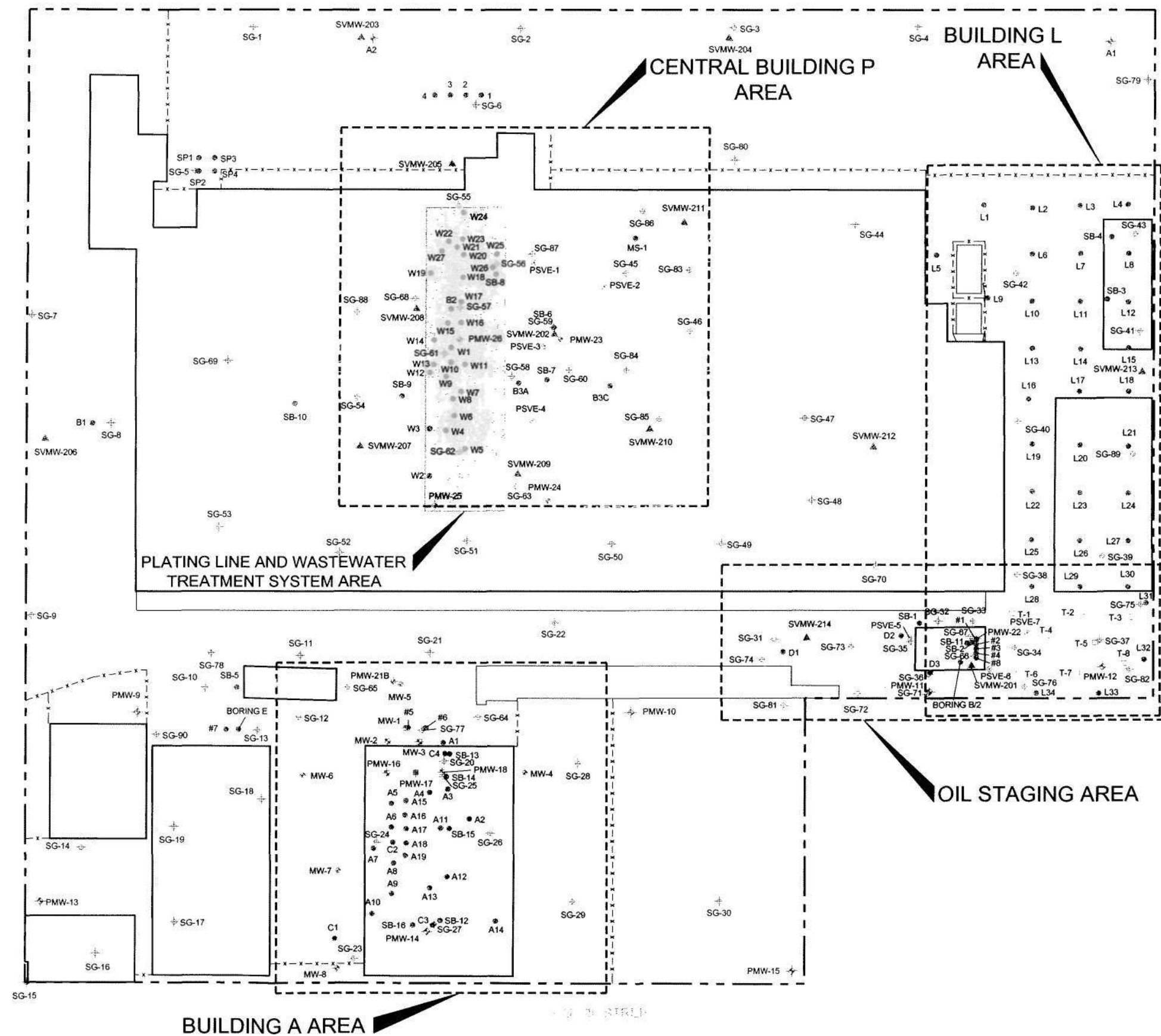
Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

**Figure 2**



[Insert oversized map: **Figure 3, Site Plan Showing Historical Features and Sampling Locations – Dated February 2003**]





**Legend:**

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- Soil Gas Grab Sample
- Soil Vapor Extraction Well
- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Free Hydrocarbon Product Collection Well
- Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
- - - - - Approximate Property Boundary
- - - - - Out-of-Service Railroad Spur
- x - x - x - x - x - Fence

**Note:**

1. All locations are approximate.

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Identified Detail Areas

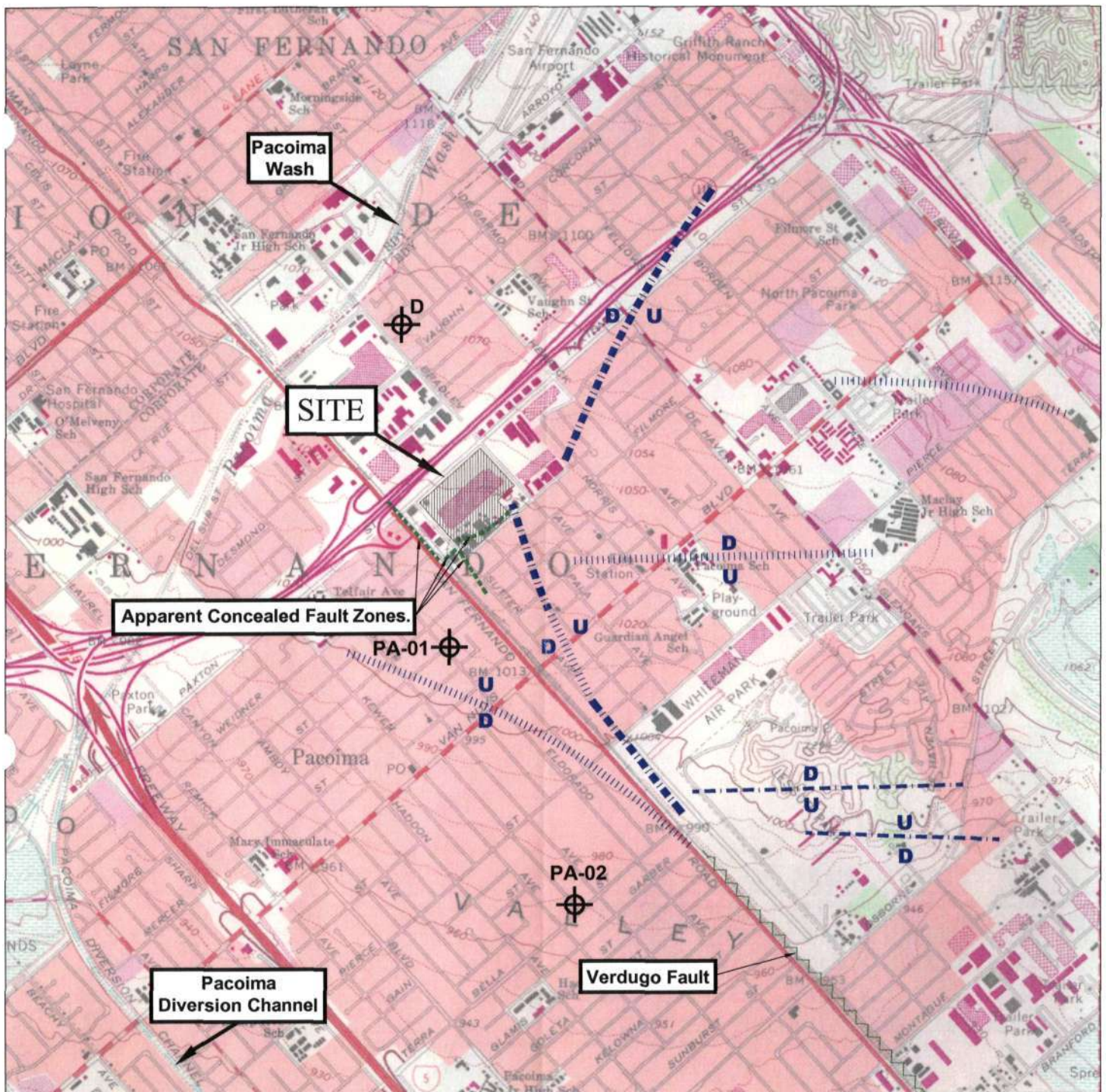
Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

**Figure 4**









Reference: U.S.G.S. 7.5 Minute Series Topographic Map, "San Fernando" Quadrangle, 1966 photorevised 1988.

#### Legend:

- Location of Boring/Well for Which Lithologic Log was Reviewed.
- Concealed Fault Suggested by Steep Gradient of Elevation Change. (USGS, 1981).
- Concealed Fault Tentatively Recognized or Suggested Only by Steepening of Gravity Gradient. (USGS, 1981).
- Fault Recognized by Surface and Subsurface Geologic Features Only; Dotted Where Concealed (USGS, 1981).
- Possible Concealed Fault Based on Changes in Groundwater Elevation Identified as Part of This Remedial Investigation.
- Dominant Fault Zone Exposed by Surface and Subsurface Geologic Characteristics (USGS, 1981).

#### Note:

1. All locations are approximate.

**Erler & Kalinowski, Inc.**

Regional Geologic Surface and Subsurface Features

Price Pfister, Inc.  
Pacoima, California

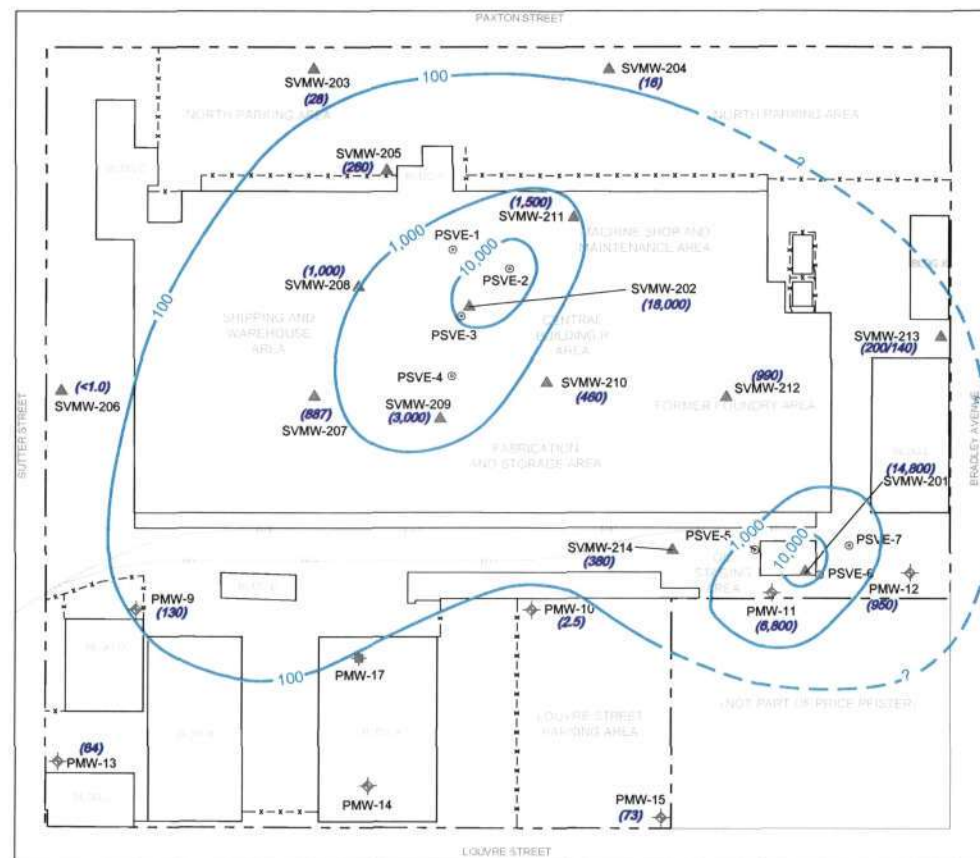
February 2003  
A20034.03

Figure 6

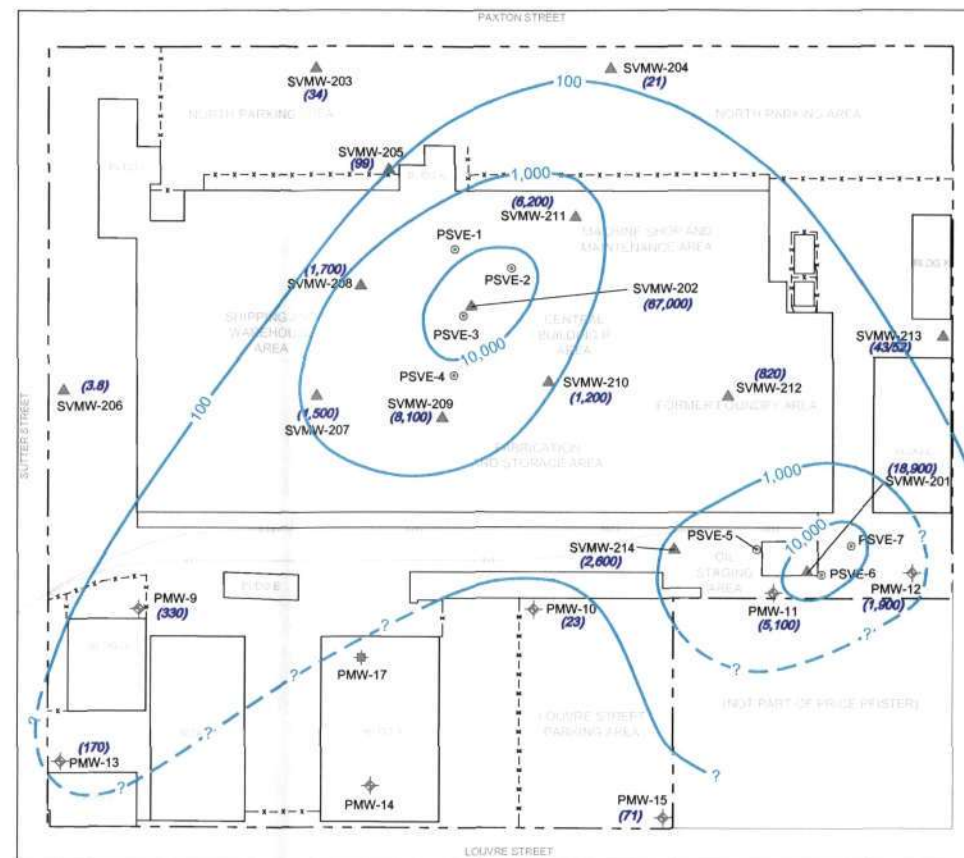




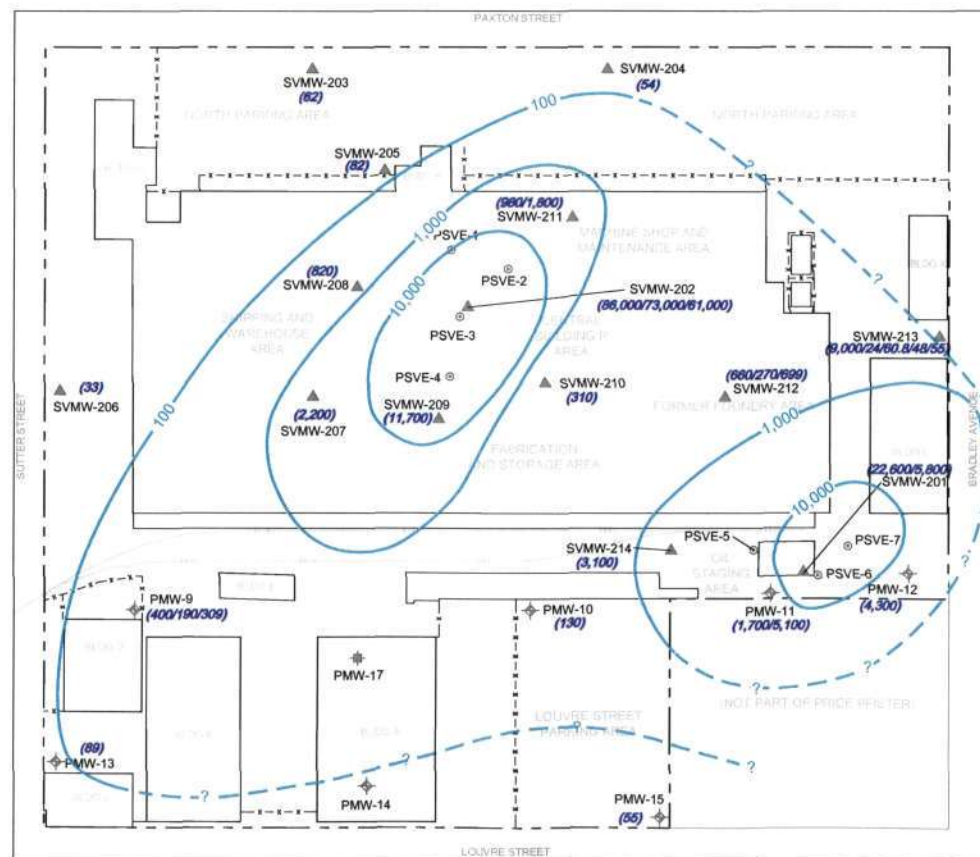




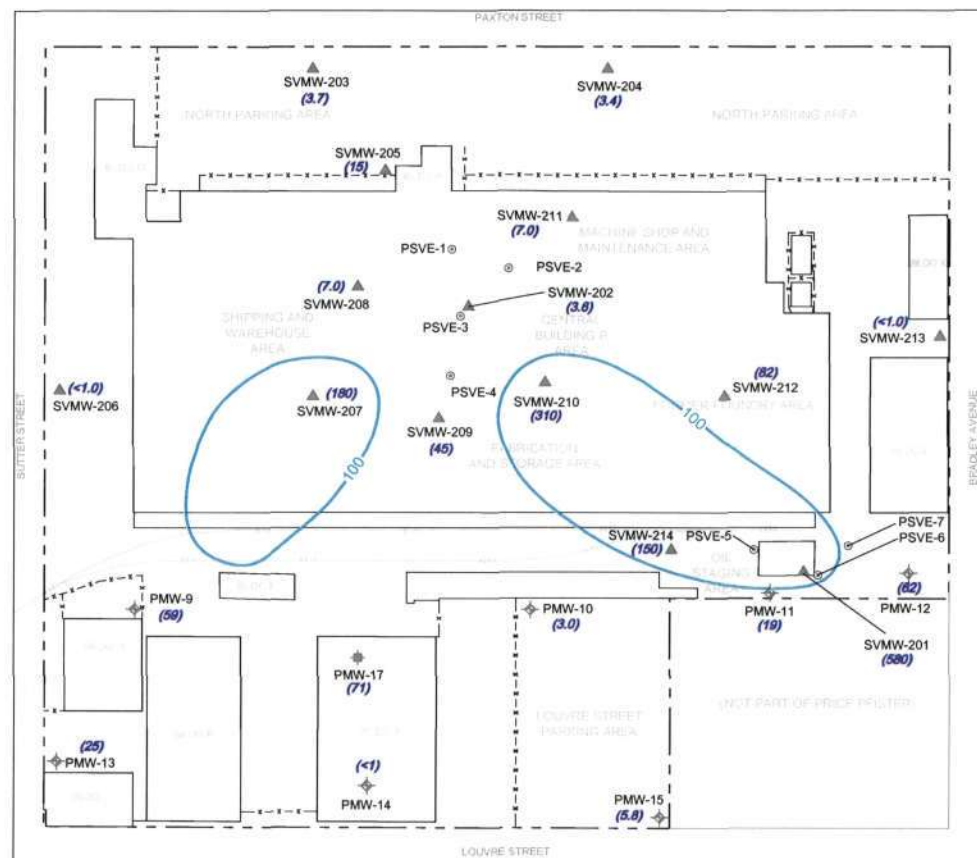
PCE Concentrations at First Screen (~10 to 24 ft bgs)



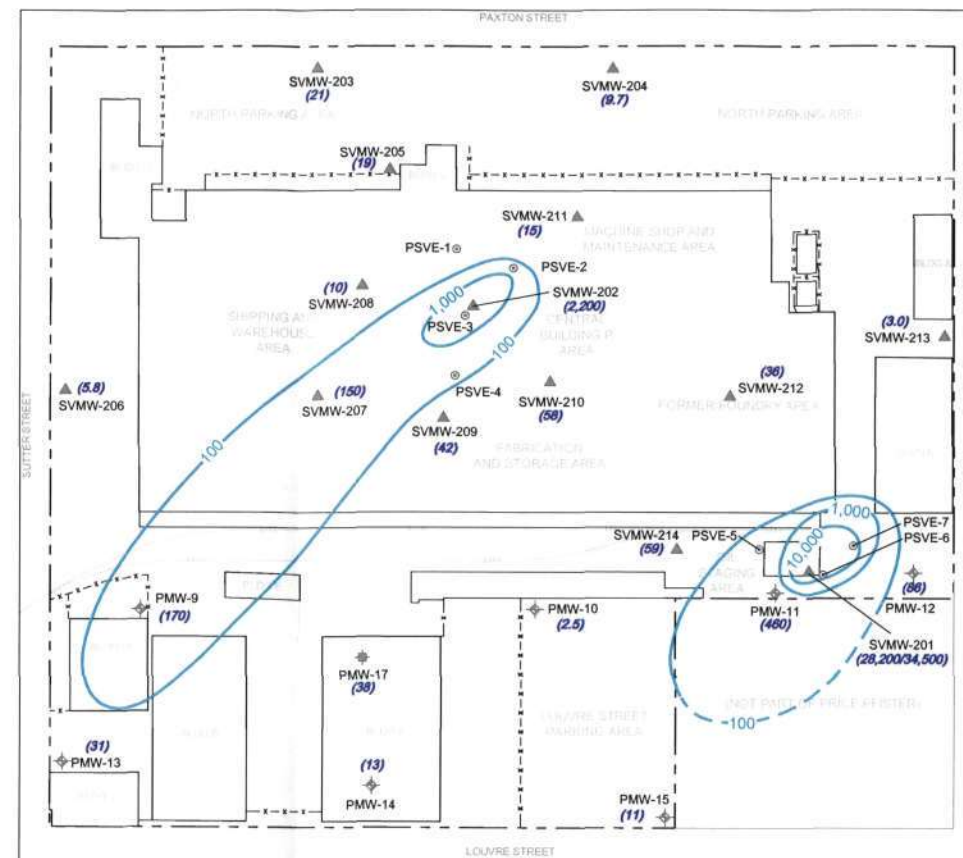
PCE Concentrations at Second Screen (~25 to 39 ft bgs)



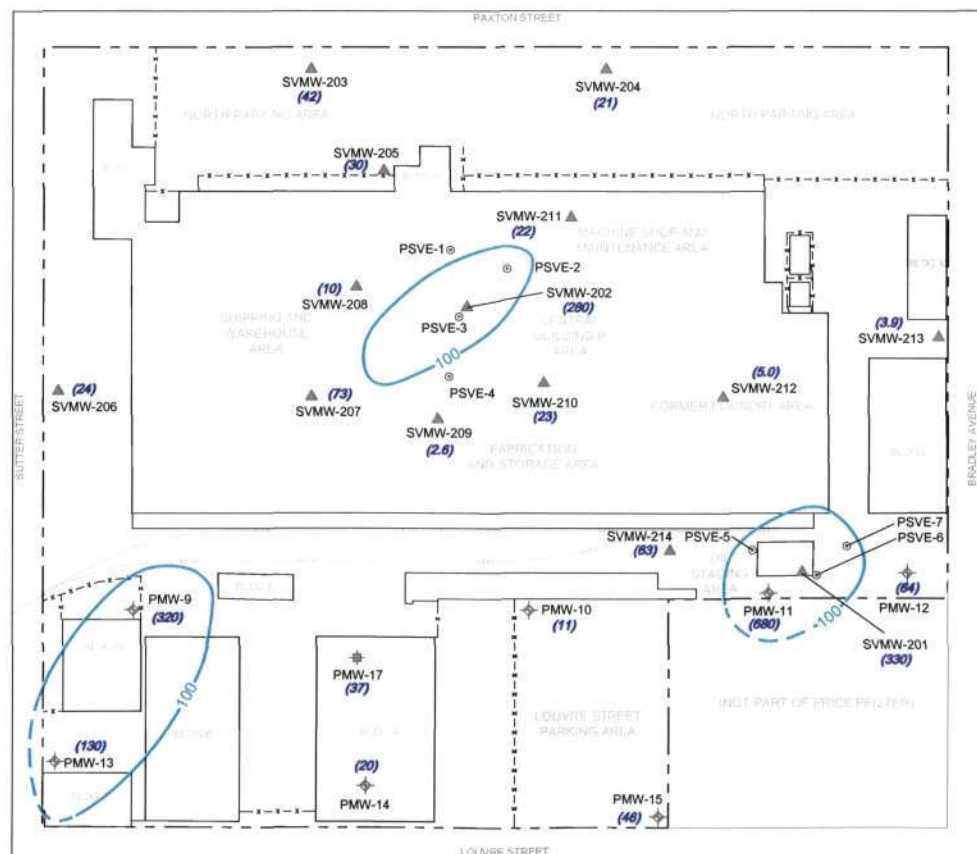




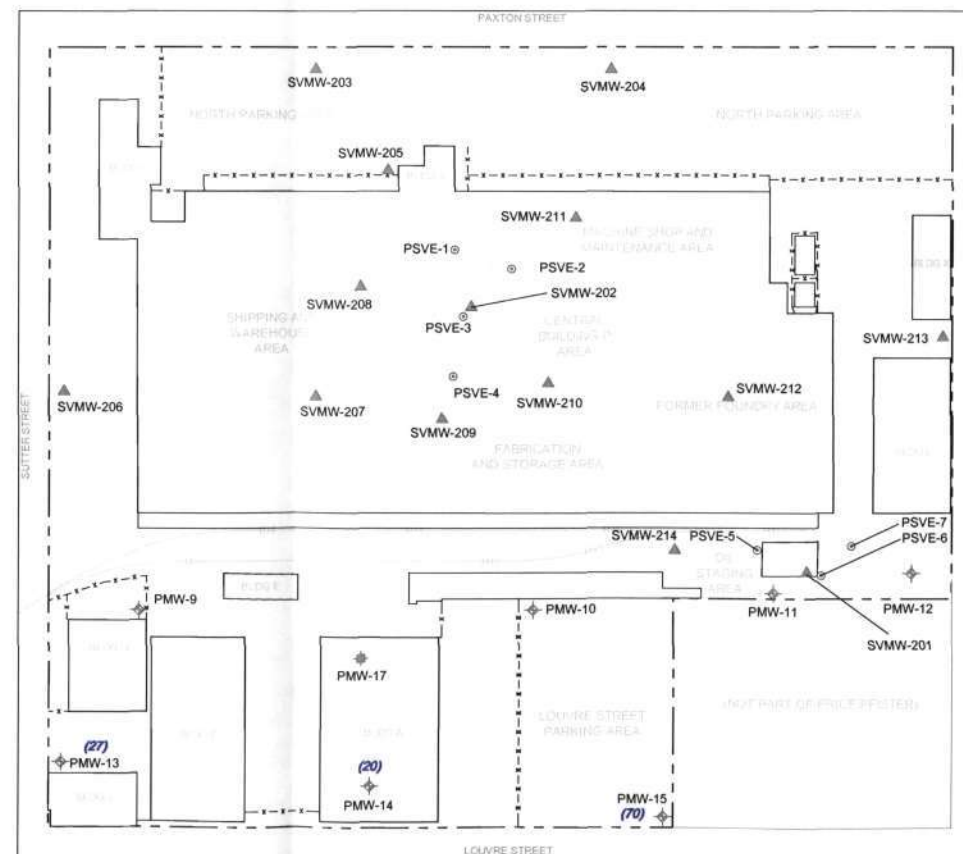
PCE Concentrations at First Screen (~10 to 24 ft bgs)



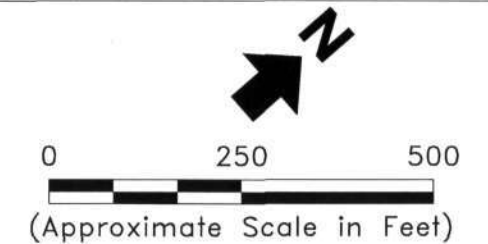
PCE Concentrations at Second Screen (~25 to 39 ft bgs)



PCE Concentrations at Third Screen (~40 to 54 ft bgs)



PCE Concentrations at Fourth Screen (~60 to 65 ft bgs)



#### Legend:

- ▲ Soil Vapor Monitoring Well
- Soil Vapor Extraction Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- ★ Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
- Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - Fence
- 100 Contour of Tetrachloroethene ("PCE") Concentration in Soil Gas (µg/L); Dashed Where Inferred

#### Abbreviations:

- ft bgs = feet below ground surface
- µg/L = micrograms per liter

#### Notes:

1. All locations are approximate.
2. Analytical results are in micrograms per liter.
3. Analytical results shown are for samples collected between 30 October 2002 and 5 November 2002 after soil vapor extraction systems began operation in September 2002.
4. Screen Intervals of vapor monitoring wells are as follows:

	Wells PMW-13, PMW-14 and PMW-15	All Other Wells
First Screen Interval	Yes	Yes
Second Screen Interval	Yes	Yes
Third Screen Interval	Yes	Yes
Fourth Screen Interval	Yes	No

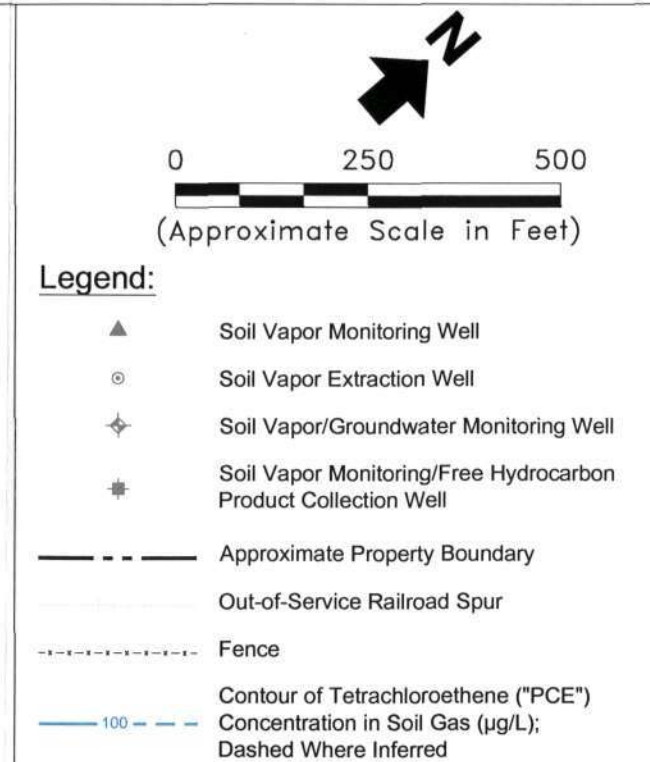
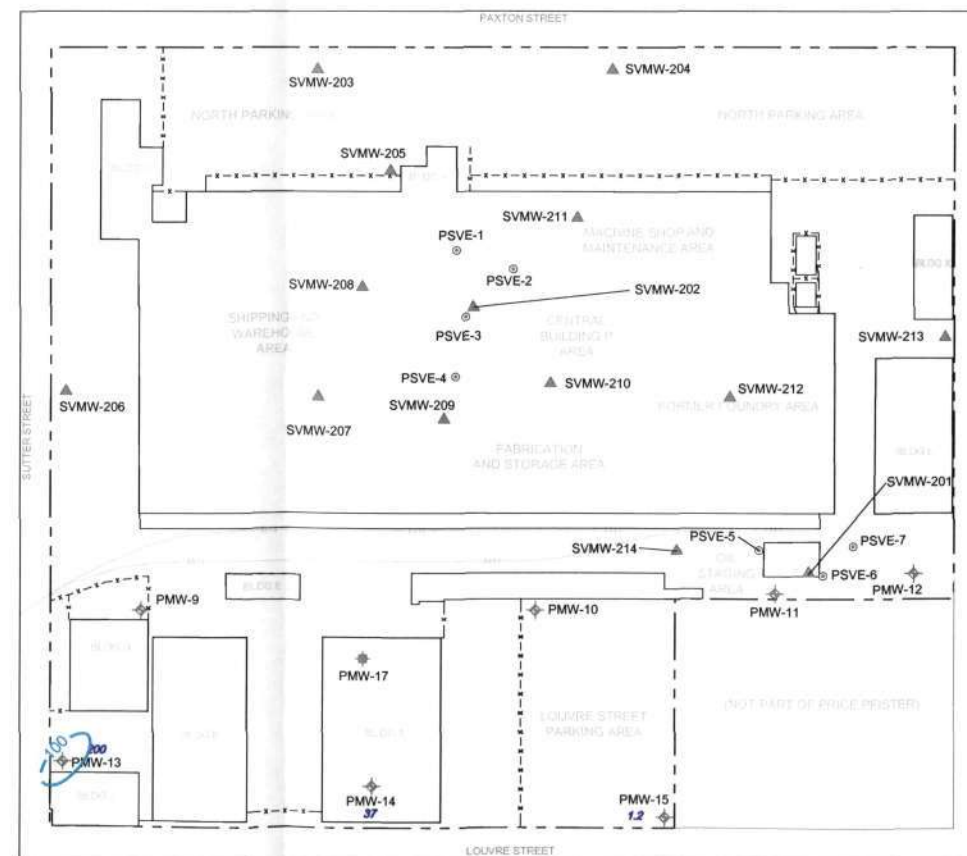
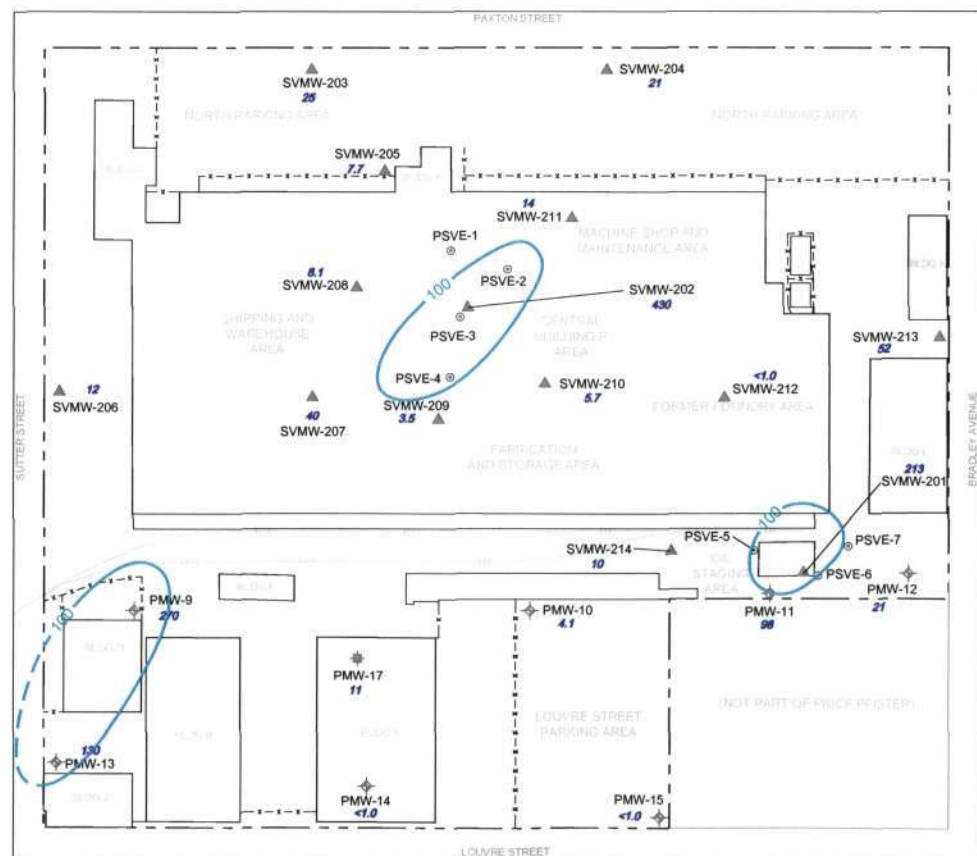
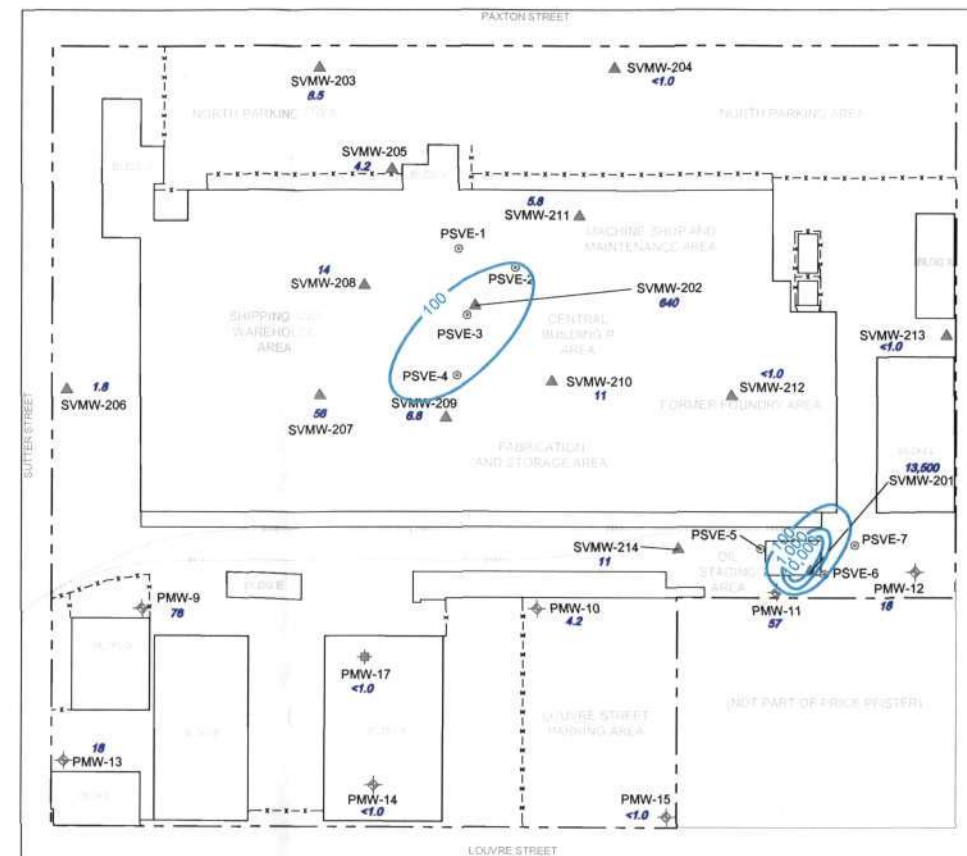
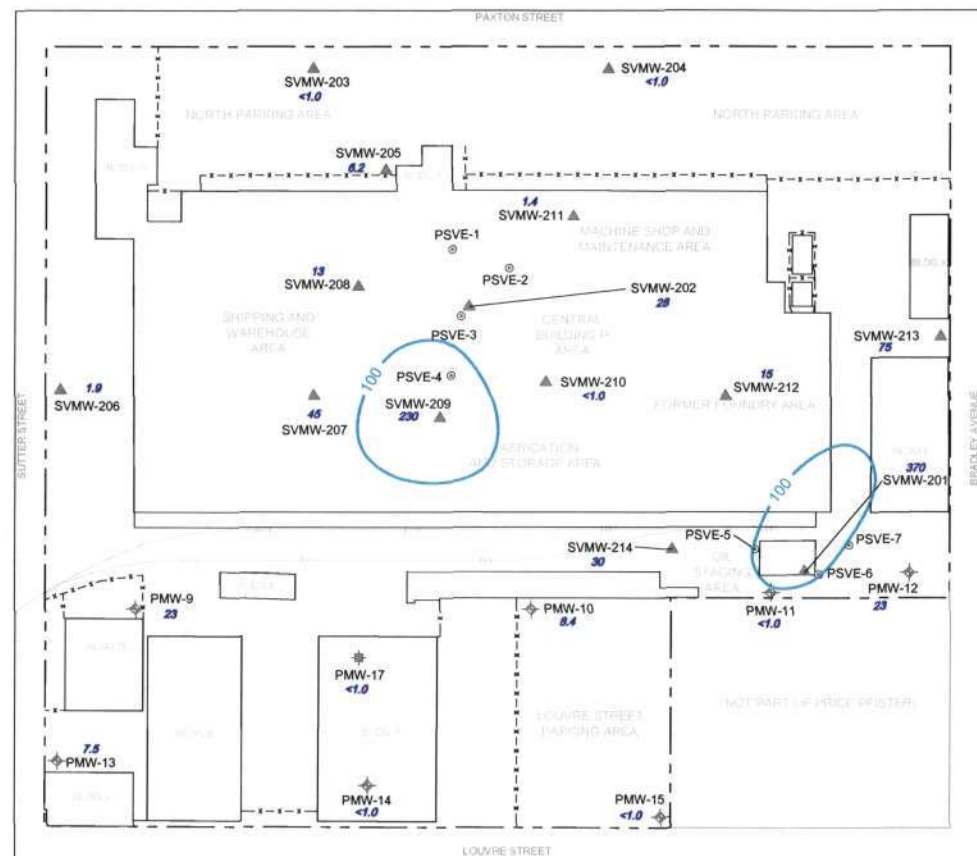
**Erler &  
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PCE Soil Gas Concentration  
Contours with Depth  
October - November 2002

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 9





Abbreviations:

ft bgs = feet below ground surface

$\mu\text{g/L}$  = micrograms per liter

## Notes:

1. All locations are approximate.
2. Analytical results shown are for samples collected 16 December 2002 to 19 December 2002 prior to temporary shutdown of soil vapor extraction systems on 20 December 2002.
3. Screen Intervals of vapor monitoring wells are as follows:

	<u>PMW-13,</u> <u>PMW-14 and PMW-15</u>	<u>All Other Wells</u>
First Screen Interval	Yes	Yes
Second Screen Interval	Yes	Yes
Third Screen Interval	Yes	Yes
Fourth Screen Interval	Yes	No

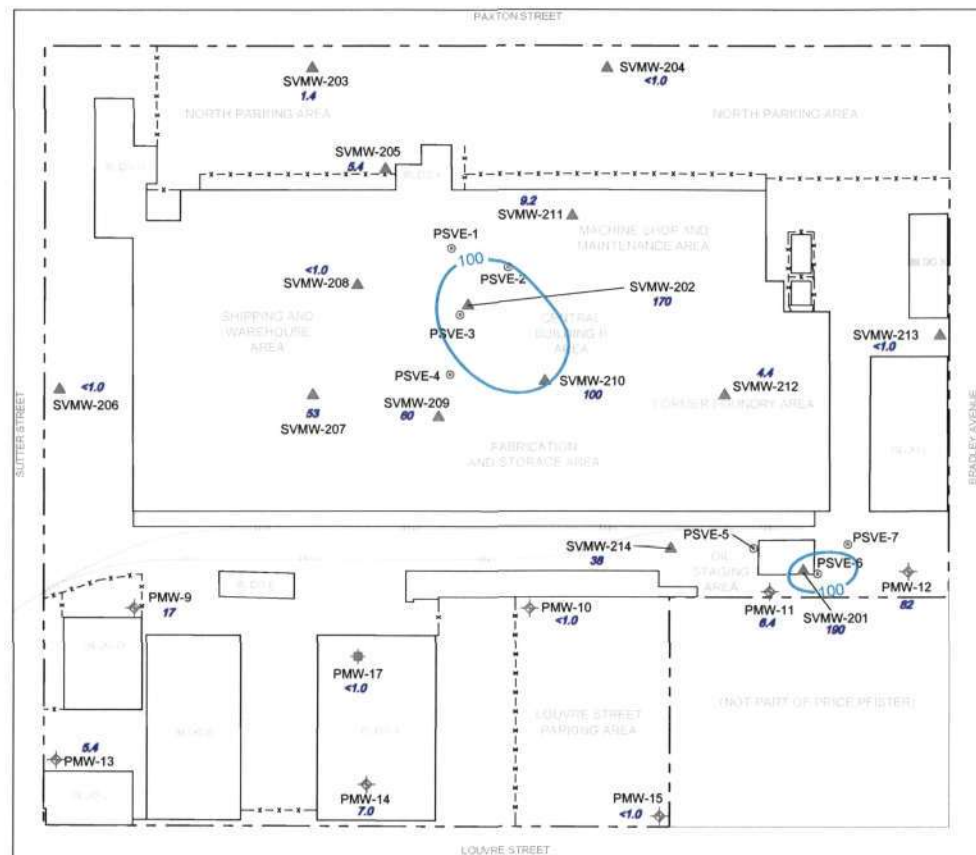
**Erler &  
Kalinowski, Inc.**

PCE Soil Gas Concentration  
Contours with Depth  
December 2002

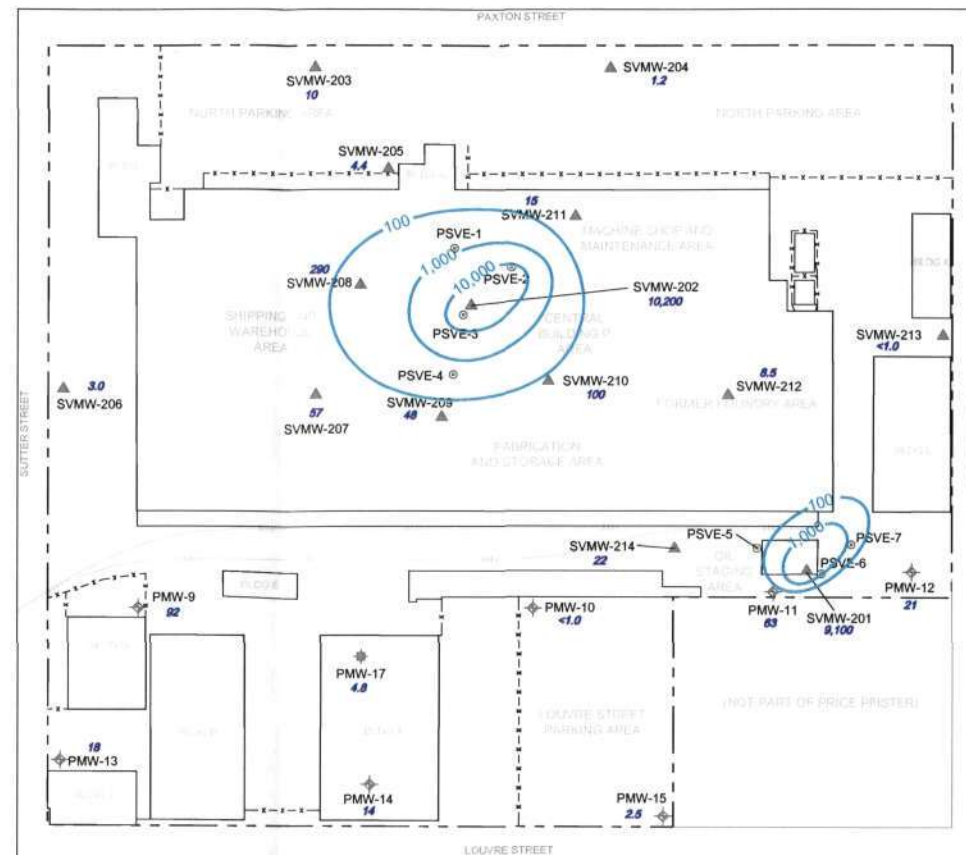
Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 10

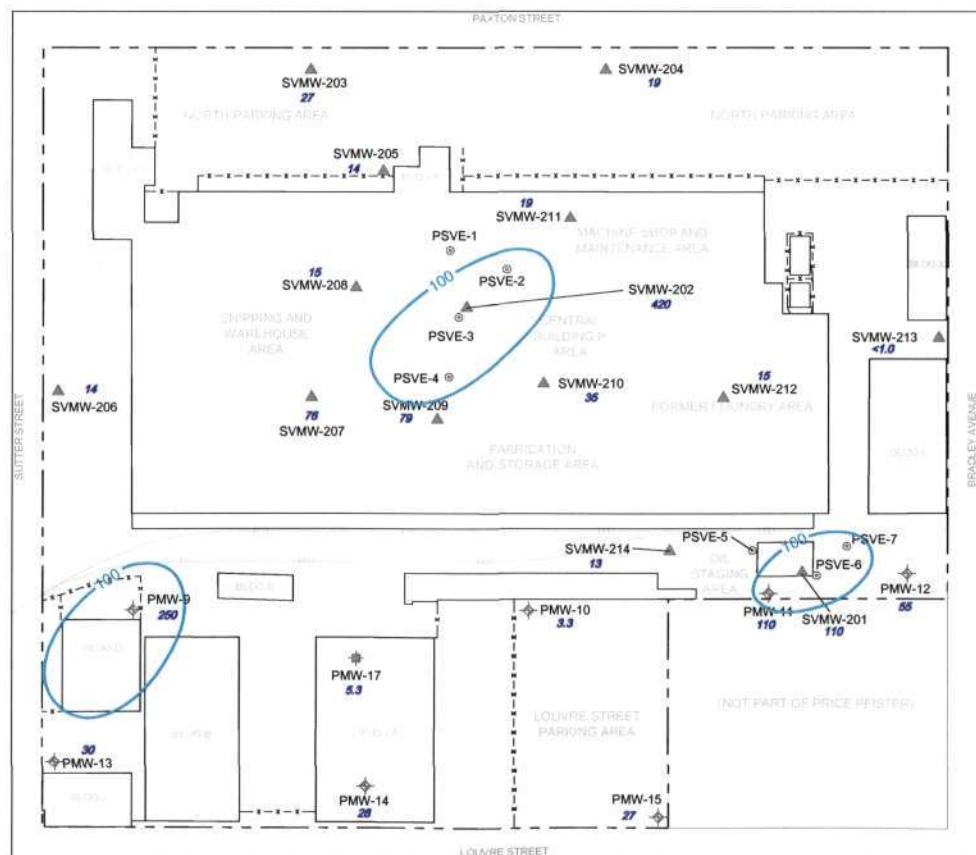




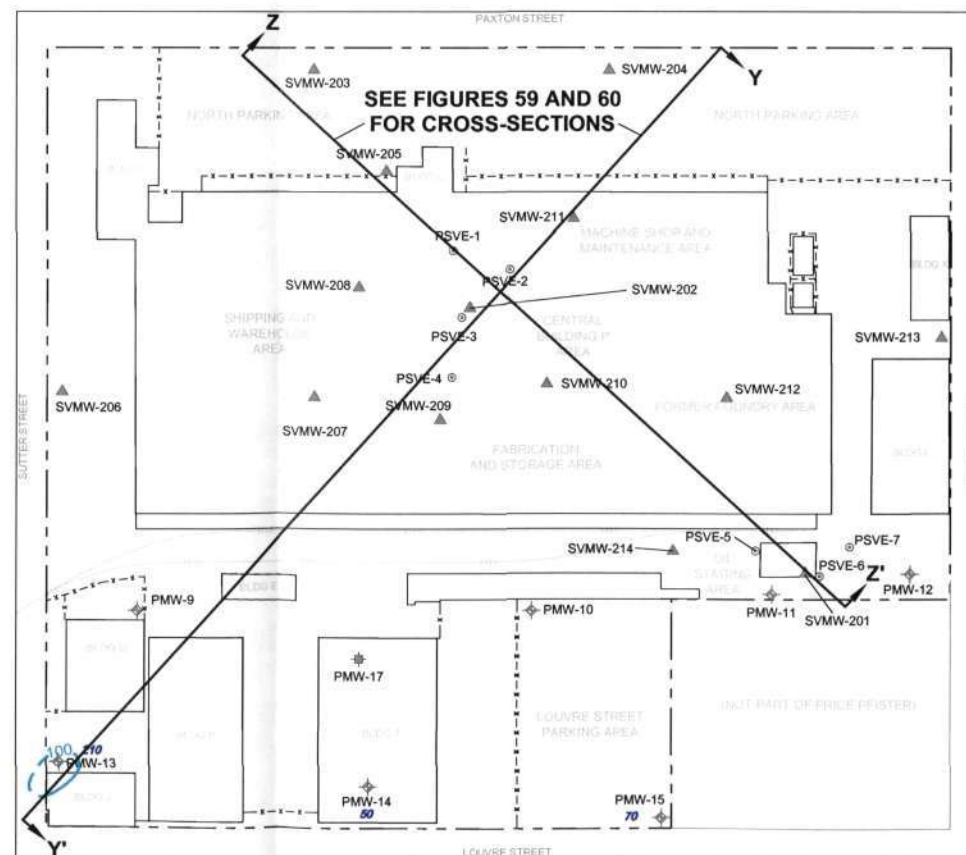
PCE Concentrations at First Screen (~10 to 24 ft bgs)



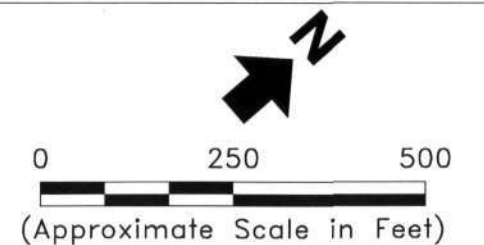
PCE Concentrations at Second Screen (~25 to 39 ft bgs)



PCE Concentrations at Third Screen (~40 to 54 ft bgs)



PCE Concentrations at Fourth Screen (~60 to 65 ft bgs)



#### Legend:

- ▲ Soil Vapor Monitoring Well
- Soil Vapor Extraction Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- ⬢ Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
- Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - - - Fence
- 100 Contour of Tetrachloroethene ("PCE") Concentration in Soil Gas (µg/L); Dashed Where Inferred

#### Abbreviations:

- ft bgs = feet below ground surface
- µg/L = micrograms per liter

#### Notes:

- All locations are approximate.
- Analytical results shown are for samples collected 2 January 2003 to 7 January 2003 during temporary shutdown of soil vapor extraction systems between 20 December 2002 and 14 January 2003.

- Screen Intervals of vapor monitoring wells are as follows:

	Wells PMW-13, PMW-14 and PMW-15	All Other Wells
First Screen Interval	Yes	Yes
Second Screen Interval	Yes	Yes
Third Screen Interval	Yes	Yes
Fourth Screen Interval	Yes	No

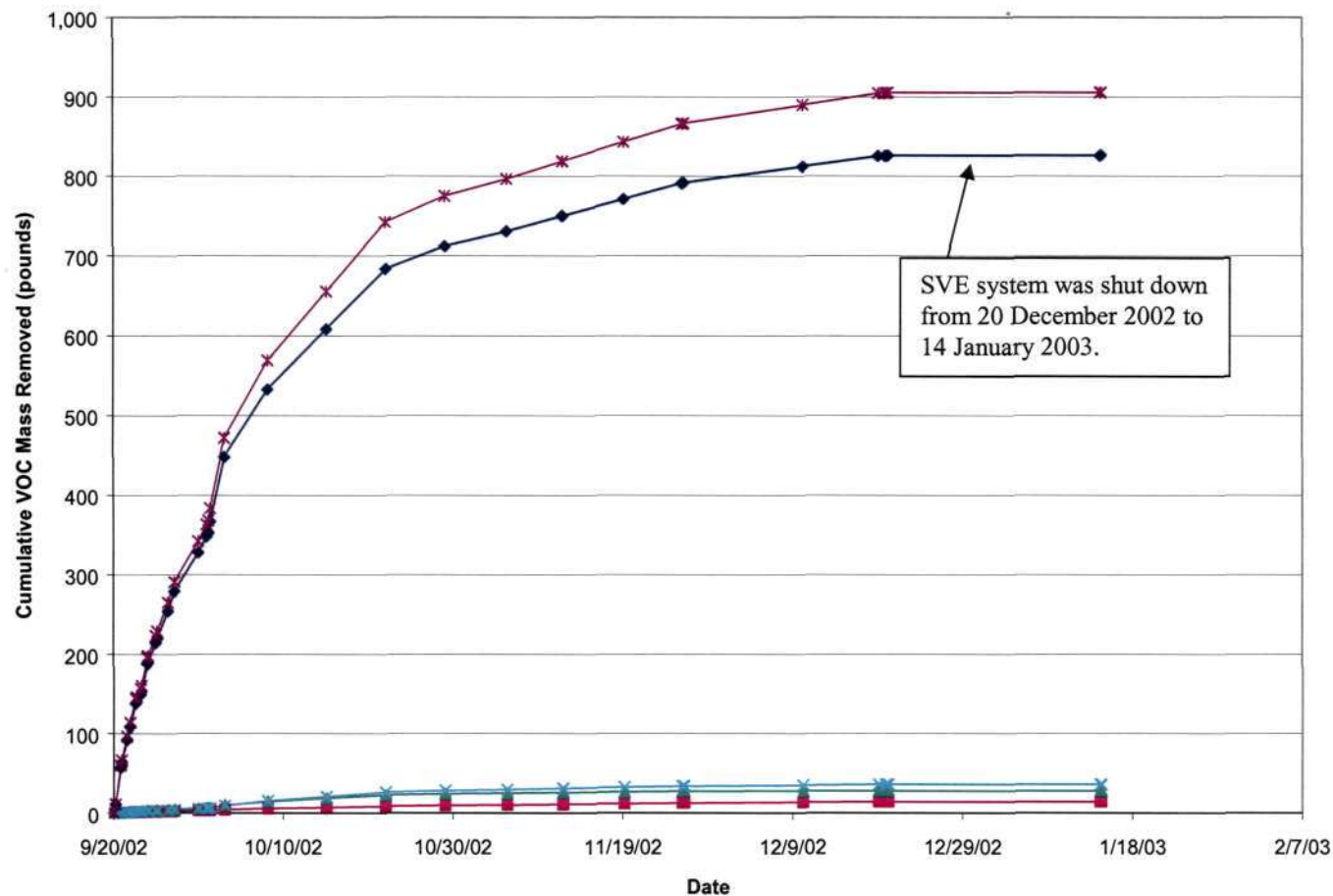
**Erler &  
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PCE Soil Gas Concentration  
Contours with Depth  
January 2003

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 11





Legend:

- 4 Total VOCs
- " Tetrachloroethene
- ! Trichloroethene
- % 1,1-dichloroethene
- X 1,1,1-trichloroethane

Abbreviations:

- SVE = Soil vapor extraction
- VOC = Volatile organic compound

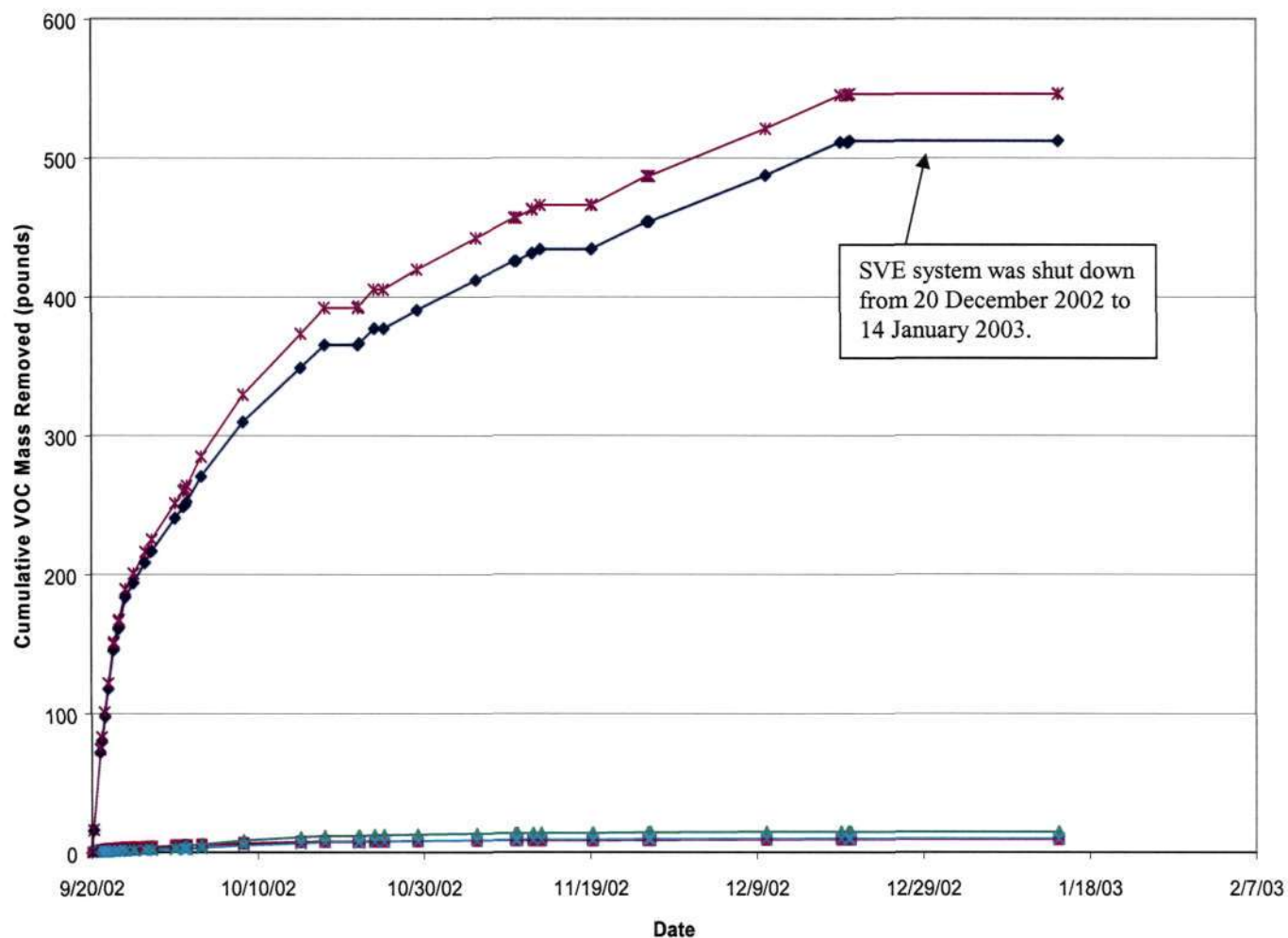
**Erler &  
Kalinowski, Inc.**

**Estimated Cumulative  
Mass of VOCs Removed  
by SVE System at  
Building P**

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

**Figure 12**





Legend:

- 4 Total VOCs
- " Tetrachloroethene
- ! Trichloroethene
- % 1,1-dichloroethene
- X 1,1,1-trichloroethane

Abbreviations:

- SVE = Soil vapor extraction
- VOC = Volatile organic compound

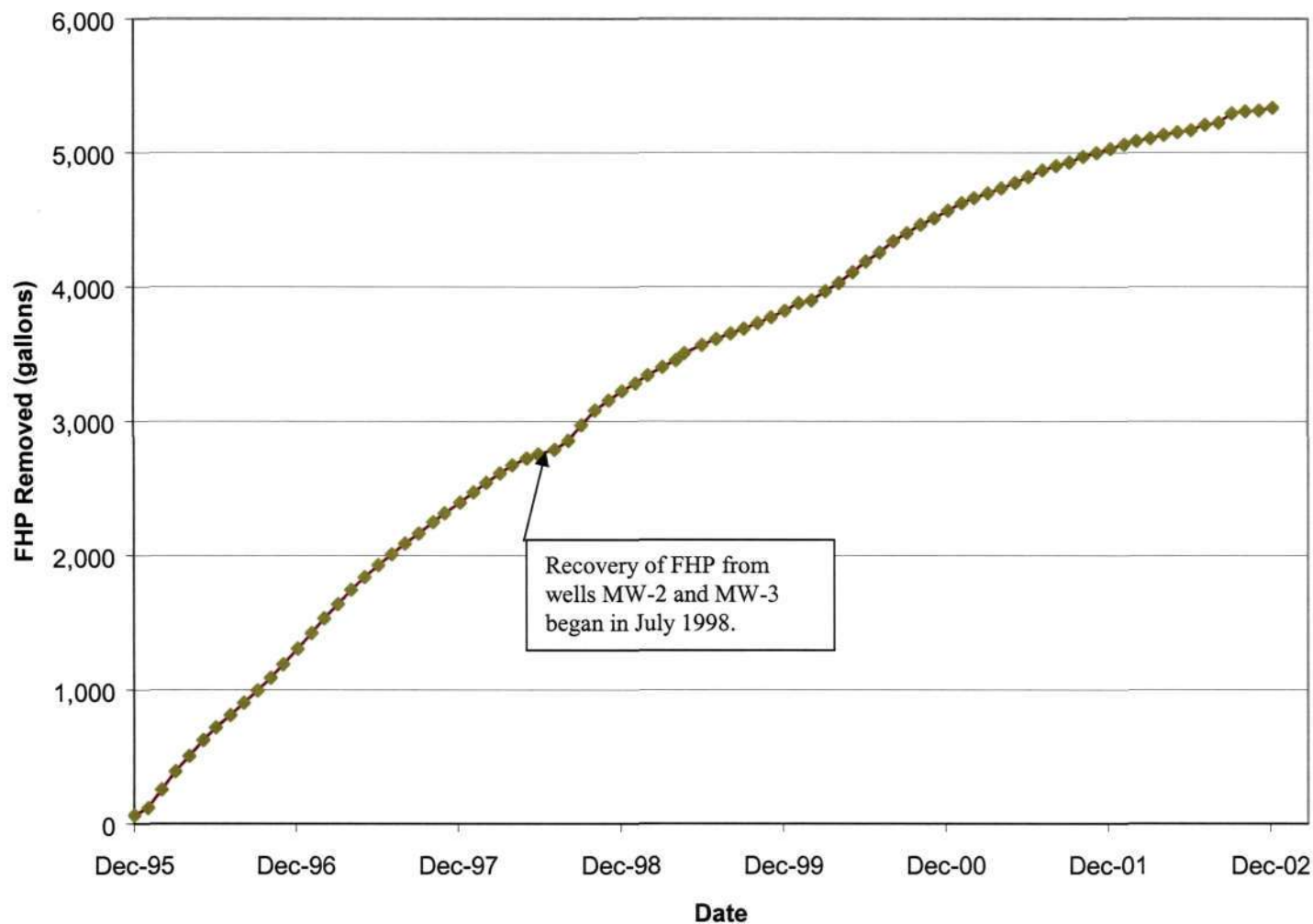
**Erler &  
Kalinowski, Inc.**

**Estimated Cumulative  
Mass of VOCs Removed  
by SVE System at Oil  
Staging Area**

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

**Figure 13**





Legend:

■ Cumulative FHP Removed

Abbreviations:

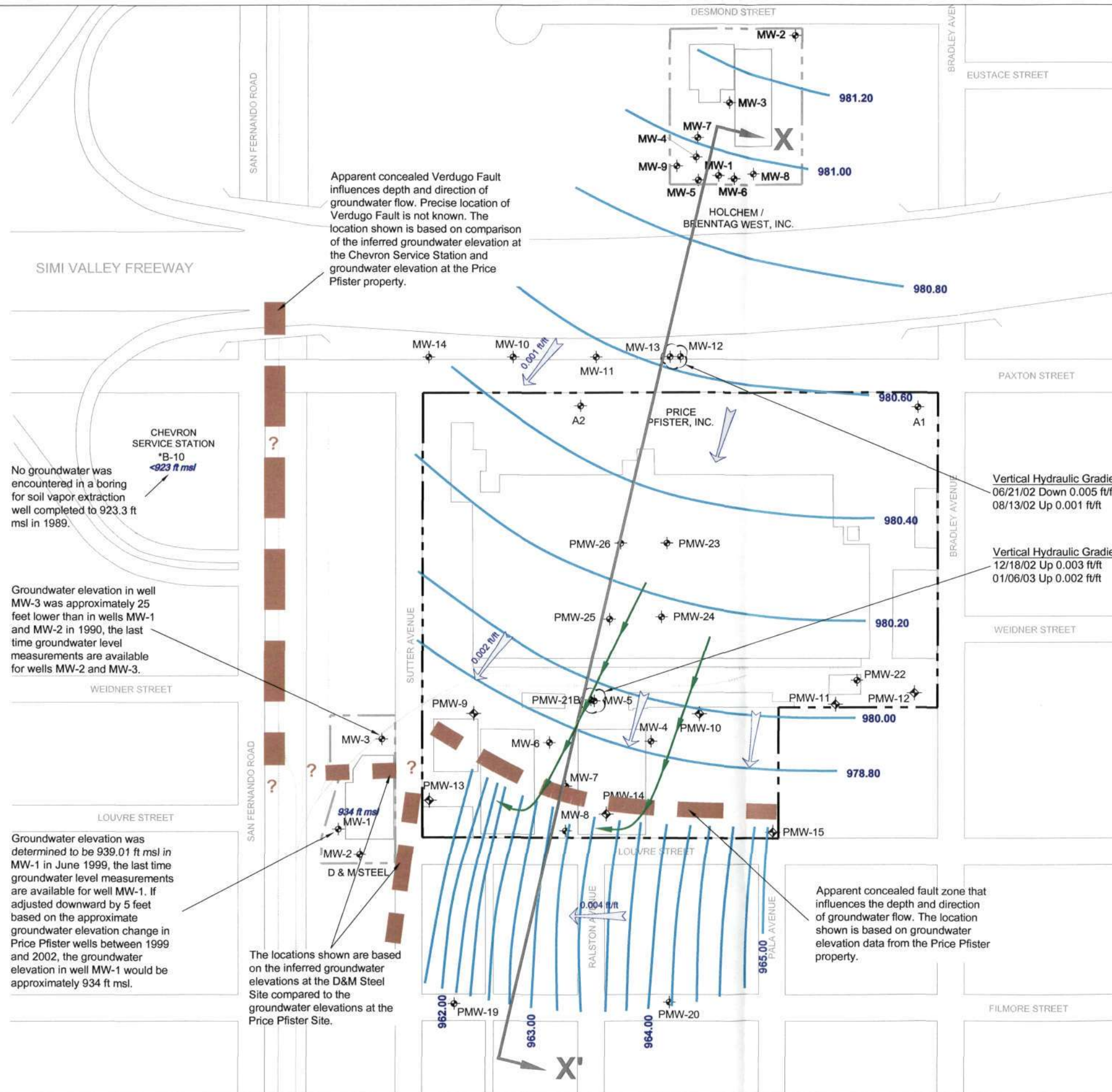
FHP = Free Hydrocarbon  
Product

**Erler &  
Kalinowski, Inc.**

**Estimated Cumulative  
Quantity of Petroleum  
Hydrocarbons Removed  
from FHP Collection  
System at Building A**

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
**Figure 14**





#### Legend:

- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- 980.8 Inferred Groundwater Elevation Contour; ft msl
- 0.004 ft/ft Magnitude and Direction of Horizontal Hydraulic Gradient
- Projected Groundwater Flow Path
- Cross-Section Location

#### Abbreviations:

ft msl = feet above mean sea level

#### Notes:

1. All locations are approximate.
2. Price Pfister Well PMW-21B and Holchem/Brenntag West, Inc. wells MW-1, MW-7, MW-8, MW-9, MW-11 and MW-12 are screened below the water table.
3. The identified groundwater elevation contours for the Price Pfister property are based on measurements collected 6 January 2003. The groundwater elevation contours for the Holchem facility are based on measurements collected 13 August 2002, which have been adjusted downward by subtracting 1.9 feet. The adjustment of 1.9 feet is based on the approximate average decrease in groundwater elevations in Price Pfister monitoring wells from 12 August 2002 to 6 January 2003.
4. Water level measurements associated with identified groundwater level contours are presented on figures included in Appendix B.

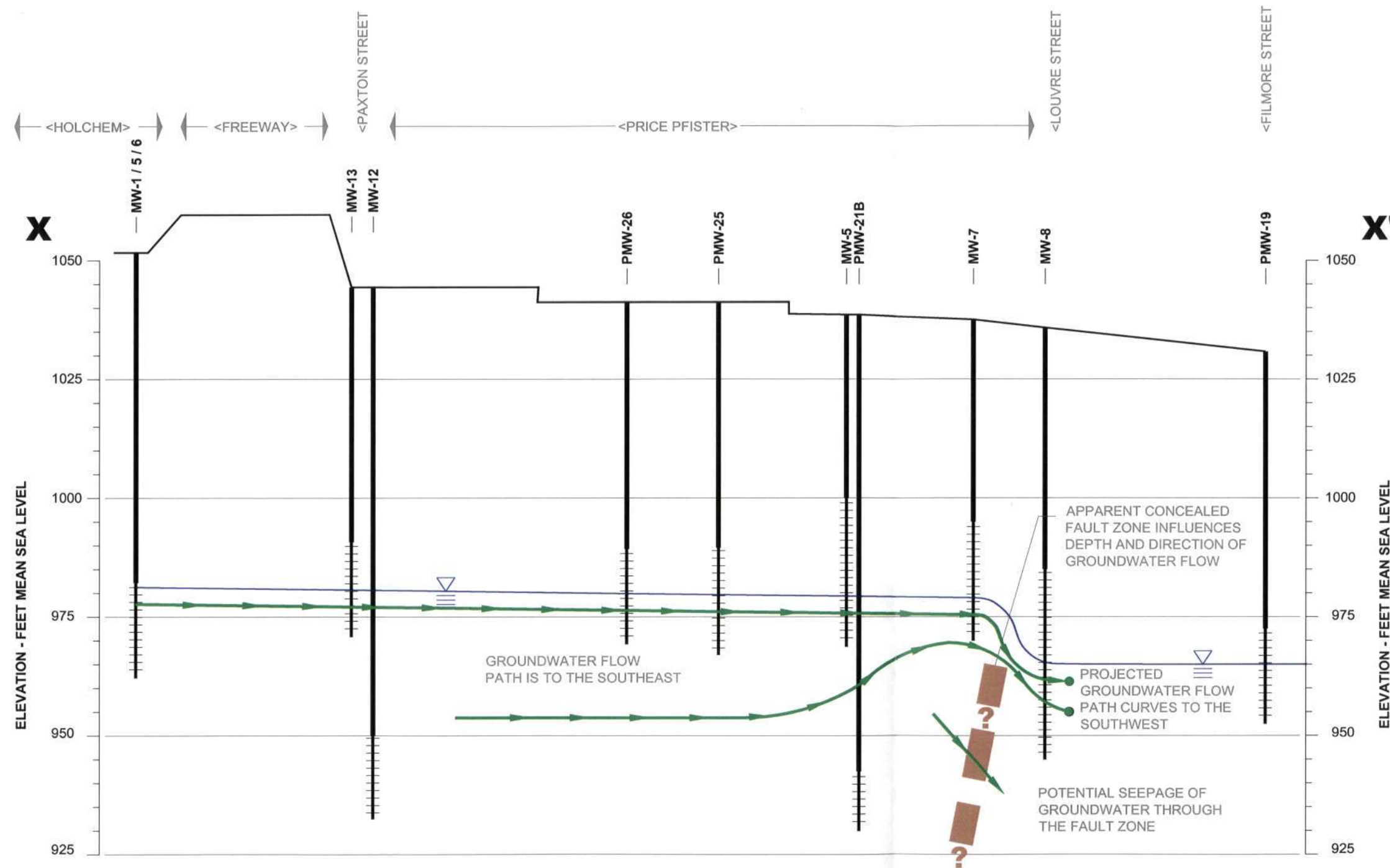
**Erler & Kalinowski, Inc.**

Plan View Illustrating Generalized Groundwater Flow Conditions

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 15





**Erler & Kalinowski, Inc.**

Cross-Section View Illustrating Generalized Groundwater Flow Conditions

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 16



A2					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	375	206	293	2,434	137
5/13/02	270	170	270	3,400	140
8/14/02	290	140	230	3,000	100

PMW-25					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	789	12.0	15.6	<5.00	21.8
1/8/03	746	9.43	13.1	<5.00	21.2

MW-5					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	3,213	60.4	26.5	<20	39.3
6/5/02	1,977	33.3	26	20.8	26.5
8/14/02	333	<5.00	<5.00	<5.00	<5.00
11/8/02	307	<5.00	<5.00	<5.00	5.11
11/8/02 (Dup)	241	<4.00	<4.00	<4.00	<4.00
1/8/03	238	2.67	2.81	<2.50	4.45

PMW-21B (See Note 4)					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	3.20	<0.500	<0.500	<0.500	<0.500
1/6/03	2.57	<0.500	<0.500	<0.500	<0.500

MW-6					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	24.9	0.95	1.89	1.45	0.65
6/5/02	55.3	<1.0	4.13	1.83	<1.0
8/13/02	18.1	0.74	1.11	0.76	0.62
8/13/02 (Dup)	18.6	0.80	1.18	0.78	0.66
11/8/02	13.1	<0.500	0.590	<0.500	<0.500
1/7/03	26.0	0.930	6.27	<0.500	2.13

PMW-9					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8/13/02	18.6	1.19	6.07	<0.5	1.95
11/7/02	17.7	0.740	3.89	<0.500	1.52
1/7/03	14.3	<0.500	0.740	<0.500	0.630

MW-7					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	197	20.6	2.17	<1.0	9.34
3/8/02 (Dup)	190	18.2	1.92	<1.0	8.17
6/5/02	170	12.5	4.91	<1.0	9.92
8/12/02	195	10.5	2.37	<2.0	9.89
8/12/02 (Dup)	188	10	2.2	<2.0	9.52
11/8/02	245	14.9	<4.00	<4.00	10.6
1/8/03	55.7	21.1	5.00	<5.00	22.6

PMW-13					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8/13/02	334	6.92	11.9	6.13	10.6
11/7/02	261	5.39	9.33	5.28	9.32
11/7/02 (Dup)	241	5.00	8.62	5.15	8.27
1/8/03	247	4.52	9.56	4.34	9.59
1/8/03 (Dup)	273	4.99	10.3	4.76	10.7

MW-8					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	60	29.5	3.33	<0.5	20.8
6/5/02	84.5	24.2	6.31	<1.0	25.4
6/5/02 (Dup)	78.1	22.2	5.74	<1.0	22.9
8/13/02	47.8	22.3	3.46	<0.5	23
11/8/02	38.8	15.9	3.06	<0.500	16.2
1/6/03	47.7	15.8	3.65	<0.500	17.8
1/6/03 (Dup)	46.6	15.2	3.41	<0.500	14.9

PMW-26					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/6/02	333	8.67	36.1	19.0	15.3
1/8/03	185	6.18	34.7	21.2	12.1

PMW-23					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	1,403	<20.0	<20.0	<20.0	27.3
12/5/02 (Dup)	1,475	<20.0	<20.0	<20.0	28.1
1/8/03	1,470	16.4	11.3	<5.00	31.3

PMW-24					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	600	21.4	<5.00	<5.00	18.2
1/8/03	790	31.4	7.23	<5.00	33.5

PMW-10					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8/12/02	96.4	52.7	4.29	<1.0	50.3
11/7/02	80.3	45.3	3.64	<1.00	40.1
1/7/03	66.8	29.8	3.21	<0.500	33.7

A1					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	2.76	<0.5	<0.5	<0.5	<0.5
5/13/02	2.1	<1.0	<1.0	<1.0	<1.0
8/14/02	2.5	<1.0	<1.0	<1.0	<1.0

PMW-11					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8/14/02	1,320	<20	30.4	<20	<20
8/14/02 (Dup)	1,260	<20	28.7	<20	<20
11/7/02	843	<10.0	21.2	<10.0	<10.0
1/8/03	396	5.86	12.2	4.72	10.6

PMW-22					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	58.4	1.26	3.75	1.75	2.38
12/5/02 (Dup)	54.0	1.17	3.46	1.85	2.12
1/7/03	12.8	<0.500	1.70	<0.500	0.900

PMW-12					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8/14/02	11.6	<0.5	0.79	<0.5	<0.5
11/7/02	58.4	<1.00	1.00	<1.00	<1.00
1/7/03	55.7	<0.500	0.570	<0.500	<0.500

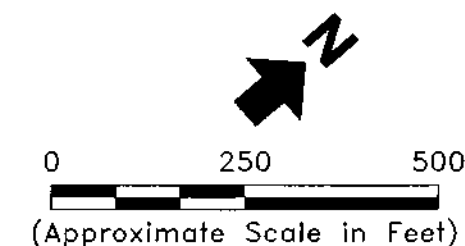
MW-4					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3/8/02	50.8	13.4	1.51	<0.5	8.63
6/5/02	80.2	13.7	4.39	<1.0	12.4
8/12/02	75.5	18.1	2.53	<1.0	15.5
11/8/02	43.7	10.2	1.51	<0.500	8.98
1/7/03	46.7	9.09	1.55	<0.500	9.90

PMW-15					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8/12/02	139	<2.0	9.74	4.32	<2.0
11/7/02	126	<2.00	7.36	2.92	<2.00
1/7/03	117	<1.00	7.13	2.21	<1.00

PMW-14					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10/22/02	61.3	21.5	2.63	<0.500	19.2
11/8/02	49.5	17.4	2.33	<0.500	15.3
1/7/03	75.0	19.7	3.15	<0.500	23.5
1/7/03 (Dup)	73.9	20.2	3.11	<0.500	24.2

PMW-19					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	4.67	<0.500	2.02	<0.500	1.42
1/6/03	6.05	<0.500	2.73	<0.500	2.09

PMW-20					
Date	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
12/5/02	3.27	<0.500	1.52	<0.500	0.560
1/6/03	3.55	<0.500	1.53	<0.500	0.690



#### Legend:

- ◆ Groundwater Monitoring Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur

#### Abbreviations:

- PCE = Tetrachloroethene
- 1,1,1-TCA = 1,1,1-trichloroethane
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-dichloroethene
- 1,1-DCE = 1,1-dichloroethene
- VOC = Volatile organic compound
- <0.002 = Analyte not detected above analytical method reporting limit shown.
- Dup = Duplicate sample

#### Notes:

1. All locations are approximate.
2. Analytical results are in micrograms per liter.
3. Data are posted only for monitoring wells sampled by Price Pfister and monitoring wells A1 and A2, which are located on the Price Pfister property, but sampled by Holchem/Brenntag West, Inc.
4. The screen for monitoring well PMW-21B is located approximately 50-feet below the groundwater table.
5. Petroleum Hydrocarbon collection wells MW-1 through MW-3 and PMW-16 through PMW-18 are not shown.

**Erler & Kalinowski, Inc.**

VOCs Detected in Groundwater  
at the Price Pfister Property

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 17



PMW-26		
Date	TVPH	TEPH
12/6/02	119	<50
1/8/03	98.0	70.0

PMW-25		
Date	TVPH	TEPH
12/5/02	218	<50
1/8/03	259	66.0

MW-5		
Date	TVPH	TEPH
3/8/02	835	189
6/5/02	724	<50
8/14/02	111	<50
11/8/02	102	<50
11/8/02 (Dup)	105	<50
1/8/03	83.0	<50

PMW-21B (See Note 4)		
Date	TVPH	TEPH
12/5/02	<50	<50
1/6/03	<50	<50

MW-6		
Date	TVPH	TEPH
3/8/02	<50	<50
6/5/02	<50	<50
8/13/02	<50	<50
8/13/02 (Dup)	<50	<50
11/8/02	<50	<50
1/7/03	<50	<50

PMW-9		
Date	TVPH	TEPH
8/13/02	<50	<50
11/7/02	<50	<50
1/7/03	<50	<50

MW-7		
Date	TVPH	TEPH
3/8/02	56.0	<50
3/8/02 (Dup)	55.0	<50
6/5/02	89.0	<50
8/12/02	52.0	<50
8/12/02 (Dup)	57.0	<50
11/8/02	94.0	<50
1/8/03	168	61.0

PMW-13		
Date	TVPH	TEPH
8/13/02	94	<50
11/7/02	104	<50
11/7/02 (Dup)	111	53
1/8/03	86.0	<50
1/8/03 (Dup)	89.0	<50

MW-8		
Date	TVPH	TEPH
3/8/02	<50	<50
6/5/02	<50	<50
6/5/02 (Dup)	57	<50
8/13/02	<50	<50
11/8/02	<50	<50
1/6/03	<50	<50
1/6/03 (Dup)	<50	<50

PMW-19		
Date	TVPH	TEPH
12/5/02	<50	<50
1/6/03	<50	<50

A2		
Date	TVPH	TEPH
3/8/02	2,230	214

PMW-23		
Date	TVPH	TEPH
12/5/02	496	<50
12/5/02 (Dup)	536	<50
1/8/03	521	<50

PMW-24		
Date	TVPH	TEPH
12/5/02	222	<50
1/8/03	226	<50

A1		
Date	TVPH	TEPH
3/8/02	<50	<50

PMW-10		
Date	TVPH	TEPH
8/12/02	<50	<50
11/7/02	67.0	52.8
1/7/03	<50	<50

PMW-22		
Date	TVPH	TEPH
12/5/02	<50	<50
12/5/02 (Dup)	<50	<50
1/7/03	<50	<50

PMW-11		
Date	TVPH	TEPH
8/14/02	437	<50
8/14/02 (Dup)	478	<50
11/7/02	320	<50
1/8/03	146	<50

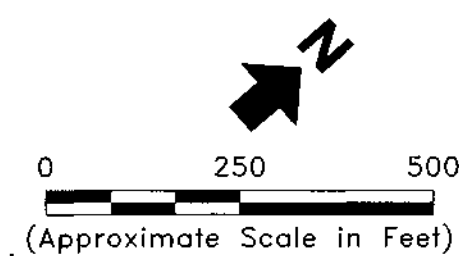
PMW-12		
Date	TVPH	TEPH
8/14/02	<50	<50
11/7/02	<50	<50
1/7/03	<50	<50

MW-4		
Date	TVPH	TEPH
3/8/02	<50	<50
6/5/02	<50	<50
8/12/02	<50	<50
11/8/02	<50	<50
1/7/03	<50	<50

PMW-15		
Date	TVPH	TEPH
8/12/02	<50	<50
11/7/02	66.0	<50
1/7/03	<50	<50

PMW-14		
Date	TVPH	TEPH
10/22/02	<50	<50
11/8/02	<50	<50
1/7/03	<50	<50
1/7/03 (Dup)	<50	<50

PMW-20		
Date	TVPH	TEPH
12/5/02	<50	<50
1/6/03	<50	<50



Legend:

- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur

Abbreviations:

- TVPH = Total volatile petroleum hydrocarbons with carbon chain lengths between C<sub>6</sub> and C<sub>11</sub>
- TEPH = Total extractable petroleum hydrocarbons with carbon chain lengths between C<sub>12</sub> and C<sub>36</sub>
- <50 = Analyte not detected above analytical method reporting limit shown.
- Dup = Duplicate sample

Notes:

- All locations are approximate.
- Analytical results are in micrograms per liter.
- Data are posted only for monitoring wells sampled by Price Pfister and monitoring wells A1 and A2, which are located on the Price Pfister property but, sampled by Holchem/Brenntag West, Inc.
- The screen for monitoring well PMW-21B is located approximately 50-feet below the groundwater table.
- Petroleum Hydrocarbon collection wells MW-1 through MW-3 and PMW-16 through PMW-18 are not shown.

Erler & Kalinowski, Inc.

TPH Detected in Groundwater at the Price Pfister Property

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 18



A2							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
3/8/02	<1.0	<5.0	<1.0	<1.0	4.97	4.42	NA

PMW-26							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
12/6/02	31.8	35.0	1.92	<1.0	12.3	222	NA
1/8/03	42.0	33.0	1.95	<1.0	9.11	217	<3.0

PMW-25							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
12/5/02	10.7	<5.0	6.06	<1.0	6.75	193	NA
1/8/03	9.34	<5.0	2.87	<1.0	2.91	202	<3.0

MW-5							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
3/8/02	<1.0	<5.0	1.17	<1.0	1.57	8.44	NA
6/5/02	16.4	<10	<1.0	<1.0	1.51	4.14	NA
8/14/02	18.0	<5.0	1.07	<1.0	<1.0	63.1	NA
11/8/02	6.68	<5.0	23.5	1.65	<1.0	142	NA
11/8/02 (Dup)	6.01	<5.0	1.33	<1.0	<1.0	103	NA
1/8/03	12.1	<5.0	1.35	<1.0	<1.0	160	<3.0

PMW-21B (See Note 4)							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
12/5/02	9.00	<5.0	50.9	12.9	2.74	470	NA
1/8/03	15.8	<5.0	1.01	<1.0	<1.0	176	<3.0

MW-6							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
3/8/02	3.33	<5.0	2.19	<1.0	2.18	7.10	NA
6/5/02	14.0	<10	<1.0	<1.0	1.22	3.71	NA
8/13/02	16.9	<10	<1.0	<1.0	<1.0	32.7	NA
8/13/02 (Dup)	21.9	<10	<1.0	<1.0	<1.0	15.8	NA
11/8/02	7.71	8.00	<1.0	<1.0	1.36	181	NA
1/7/03	13.4	<5.0	2.05	<1.0	1.44	204	<3.0

PMW-9							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
8/13/02	21.4	<10	<1.0	<1.0	<1.0	25.7	NA
11/7/02	11.0	6.68	<1.0	<1.0	1.38	249	NA
1/7/03	16.4	<5.0	2.37	<1.0	1.14	227	<3.0

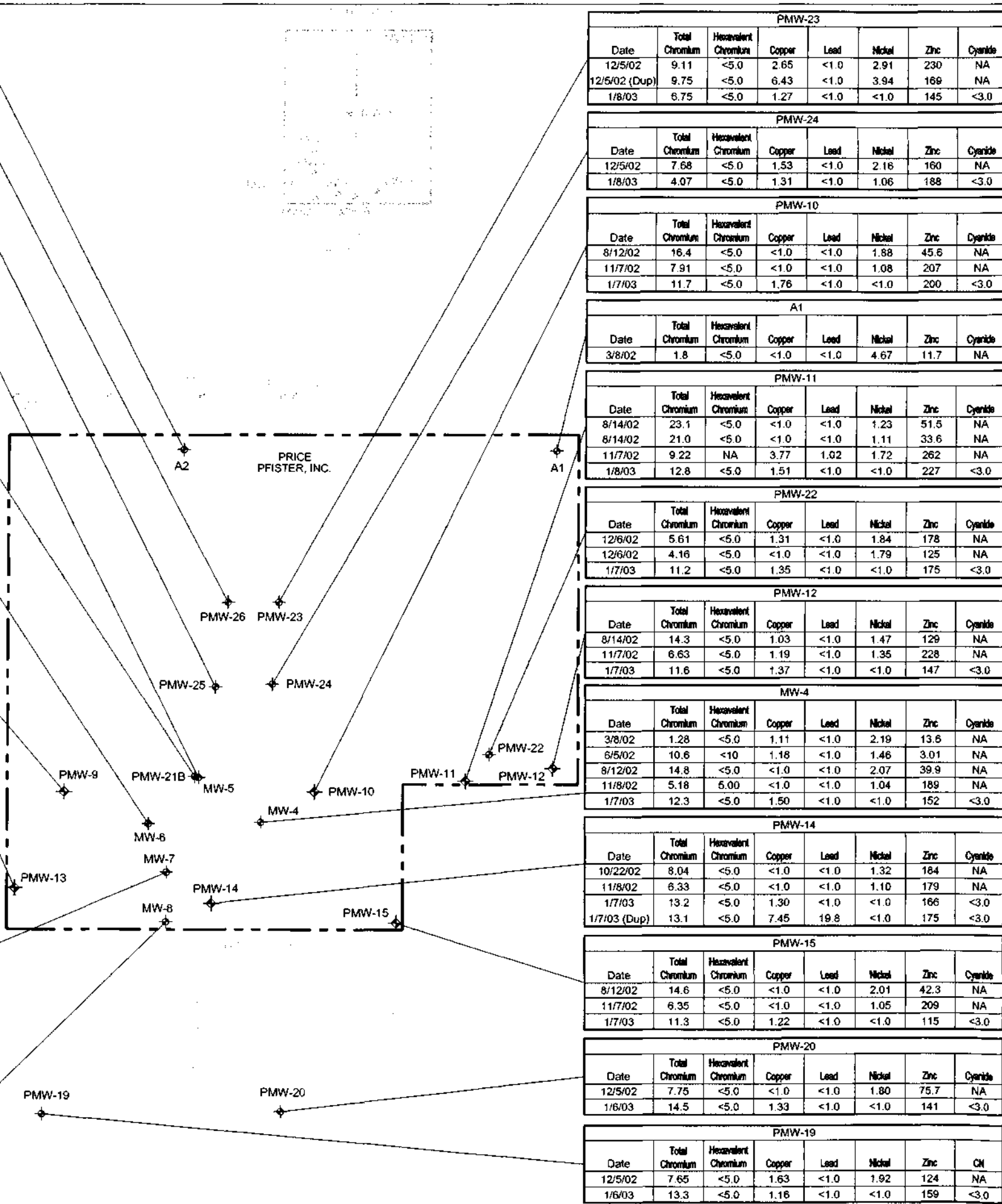
PMW-13							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
8/13/02	36.2	17	<1.0	<1.0	2.76	59.0	NA
11/7/02	21.4	NA	<1.0	<1.0	2.82	42.2	NA
11/7/02 (Dup)	20.6	NA	<1.0	<1.0	2.75	27.4	NA
1/8/03	20.6	13.0	<1.0	<1.0	2.31	108	<3.0
1/8/03 (Dup)	21.6	12.0	1.44	<1.0	2.31	178	<3.0

MW-7							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
3/8/02	7.23	<5.0	<1.0	<1.0	1.74	2.86	NA
3/8/02 (Dup)	7.26	<5.0	<1.0	<1.0	1.72	5.36	NA
6/5/02	13.8	<10	<1.0	<1.0	1.47	3.57	NA
8/12/02	17.1	<5.0	1.88	<1.0	2.56	38.4	NA
8/12/02 (Dup)	14.7	<5.0	<1.0	<1.0	1.40	34.0	NA
11/8/02	6.33	7.00	<1.0	<1.0	<1.0	218	NA
1/8/03	11.0	<5.0	1.85	<1.0	<1.0	215	<3.0

MW-8							
Date	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc	Cyanide
3/8/02	1.94	<5.0	1.72	<1.0	2.57	5.11	NA
6/5/02	12.3	<10	1.10	<1.0	1.76	12.4	NA
6/5/02 (Dup)	11.4	<10	2.03	<1.0	1.59	5.09	NA
8/13/02	17.2	<10	<1.0	<1.0	1.07	110	NA
11/8/02	5.02	7.00	<1.0	<1.0	<1.0	223	NA
1/6/03	16.2	<5.0	6.58	<1.0	<1.0	20.1	<3.0
1/6/03 (Dup)	14.7	<5.0	51.6	2.82	<1.0	37.1	<3.0



(Approximate Scale in Feet)

**Legend:**

- ◆ Groundwater Monitoring Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur

**Abbreviations**

- <1.0 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.
- Dup = Duplicate sample

**Notes:**

- All locations are approximate.
- Analytical results are in micrograms per liter.
- Data are posted only for monitoring wells sampled by Price Pfister and monitoring wells A1 and A2, which are located on the Price Pfister property, but sampled by Holchem/Brenntag West, Inc.
- The screen for monitoring well PMW-21B is located approximately 50-feet below the groundwater table.
- Petroleum Hydrocarbon collection wells MW-1 through MW-3 and PMW-16 through PMW-18 are not shown.

## Erler & Kalinowski, Inc.

Metals Detected in Groundwater  
at Price Pfister Property

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 19







SVMW-205 (7/17/2002)		
Depth	TVPH	TEPH
1 - 2	<1	<10
7 - 8	<1	<10

PSVE-1 (6/26/2002)		
Depth	TVPH	TEPH
1 - 2	<1	11.5
9.5 - 10	<1	23.1

SVMW-208 (6/28/2002)		
Depth	TVPH	TEPH
1 - 2	<1	<10
7.5 - 8.5	<1	<10
26 - 27	<1	<10
50.5 - 51.5	<1	<10

SB-9 (4/10/2001)		
Depth	TVPH	TEPH
10	<0.1	<10; <100
20	<0.1	<10; <100

SVMW-207 (6/28/2002)		
Depth	TVPH	TEPH
3 - 4	<1	<10
7.5 - 8.5	<1	<10
50.5 - 51.5	<1	<10

SVMW-209 (6/25, 27/2002)		
Depth	TVPH	TEPH
1.5 - 2.5	<1	<10
13 - 14	<1	<10

MS-1 (12/5/2002)		
Depth	TVPH	TEPH
5 - 6	<1	<10
15 - 15.5	<1	22.7

SVMW-211 (7/1/2002)		
Depth	TVPH	TEPH
3 - 4	<1	<10
10.5 - 11.5	<1	<10

PSVE-2 (6/25/2002)		
Depth	TVPH	TEPH
1.5 - 2.5	1.70	280
8 - 8.5	<1	60.6
55.5 - 56.5	<1	<10

SB-6 (4/10/2001)		
Depth	TVPH	TEPH
5	<0.1	<10; <100
10	<0.1	<10; <100

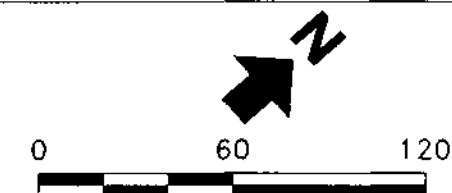
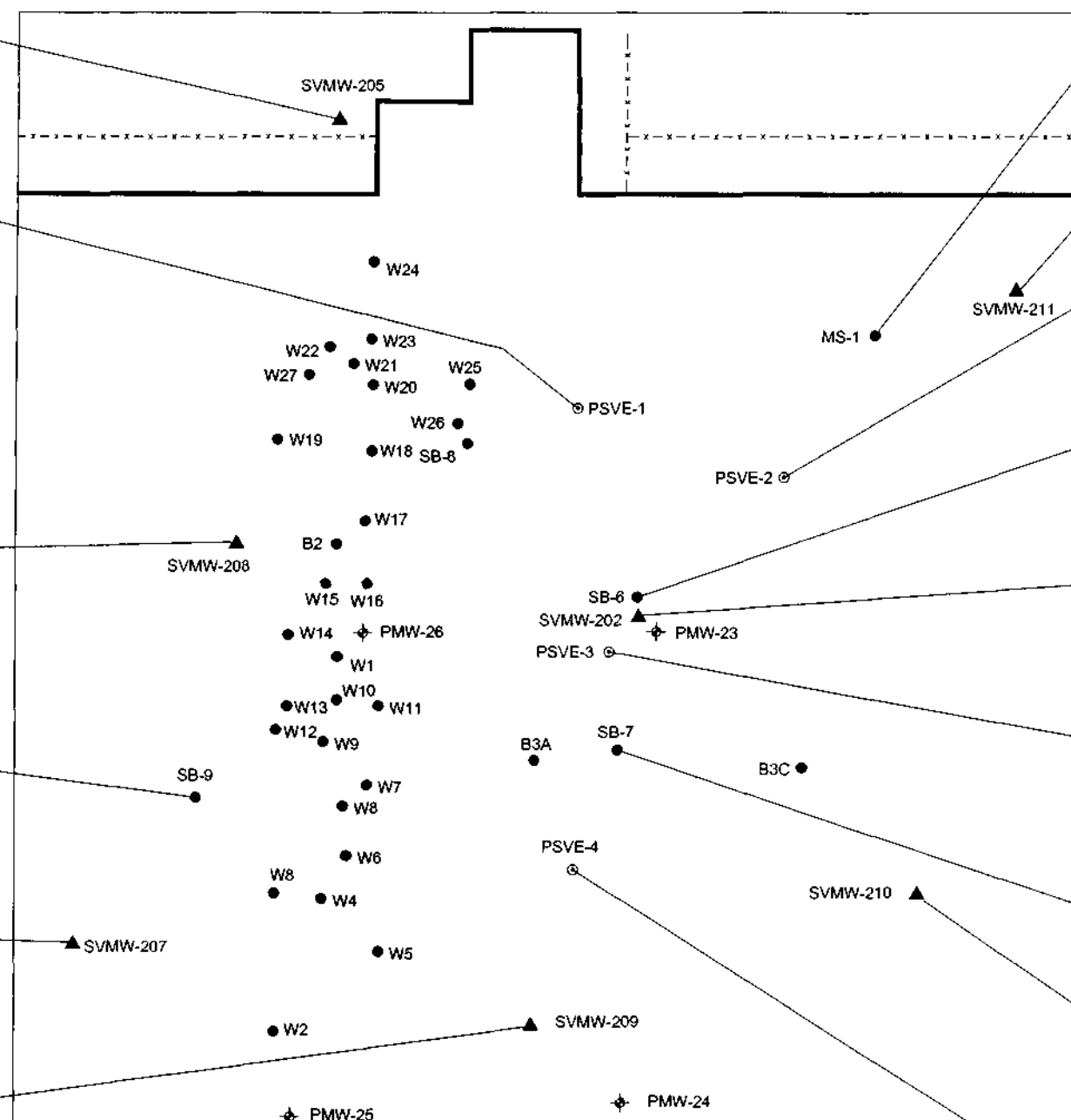
SVMW-202 (3/20/2002)		
Depth	TVPH	TEPH
20.5 - 21.5	<1	<10
30.5 - 31.5	<1	<10
45.5 - 46.5	<1	<10

PSVE-3 (6/26/2002)		
Depth	TVPH	TEPH
2.5 - 3.5	<1	<10
7.5 - 8.5	<1	<10
41.5 - 42	<1	<10

SB-7 (4/10/2001)		
Depth	TVPH	TEPH
5	<0.1	<10; <100
10	<0.1	<10; <100

SVMW-210 (5/27/2002)		
Depth	TVPH	TEPH
1 - 2	<1	<10
7.5 - 8.5	<1	<10

PSVE-4 (6/25/2002)		
Depth	TVPH	TEPH
1.5 - 2.5	<1	<10
7.5 - 8.5	<1	<10



Legend: (Approximate Scale in Feet)

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- - - - - Fence

#### Abbreviations:

- TVPH = Total volatile petroleum hydrocarbons with carbon chain lengths between C<sub>6</sub> and C<sub>11</sub> (See Note 5)
- TEPH = Total extractable petroleum hydrocarbons with carbon chain lengths between C<sub>12</sub> and C<sub>36</sub> (See Note 6)
- <1 = Analyte not detected above analytical method reporting limit shown.

#### Notes:

- All locations are approximate.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for petroleum hydrocarbons.
- Sample depths are in feet below ground or floor surface.
- Refer to Figure 25 for analytical results of soil samples collected in shaded area.
- For samples collected in 2001, the TVPH result indicates petroleum hydrocarbons in the C<sub>5</sub>-C<sub>10</sub> carbon chain length range.
- For samples collected in 2001, two TEPH results are listed. The first indicates petroleum hydrocarbons in the C<sub>10</sub>-C<sub>20</sub> carbon chain length range and the second indicates petroleum hydrocarbons in the C<sub>20</sub>-C<sub>30</sub> carbon chain length range.
- No petroleum hydrocarbon concentrations in samples shown are greater than direct contact risk-based screening level.

**Erler & Kalinowski, Inc.**

Petroleum Hydrocarbons in Soil at  
Central Building P Area Excluding Plating  
Line and Wastewater Treatment System

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 21



SVMW-205 (7/17/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1 - 2	5.96	<2.00	7.47	5.24	3.57	25.5
7 - 8	14.2	<2.00	23.4	26.9	9.20	140

PSVE-1 (6/26/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1 - 2	8.17	<1.00	440	62.4	11.0	146
9.5 - 10	7.18	<1.00	41.5	7.38	4.07	31.5

SB-6 (4/10/2001)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
5	8.60	NA	26.0	2.30	5.70	38.0
10	11.0	NA	30.0	2.60	7.20	46.0

SVMW-208 (6/28/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1 - 2	11.4	<1.00	13.6	5.83	5.09	37.4
7.5 - 8.5	9.87	<1.00	11.0	<2.5	6.13	23.4
26 - 27	10.5	<1.00	12.5	<2.5	5.97	24.4
50.5 - 51.5	7.00	<1.00	9.94	<2.5	3.55	17.3

SVMW-202 (3/20/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
20.5 - 21.5	14.3	<2.50	19.7	<5.00	7.05	39.4
30.5 - 31.5	8.99	<2.50	18.1	<5.00	5.33	30.3
45.5 - 46.5	7.52	<2.50	12.6	<5.00	<5.00	35.9

PSVE-3 (6/26/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	6.75	<1.00	11.9	5.25	4.69	57.2
7.5 - 8.5	7.37	<1.00	9.04	2.55	5.18	25.1
41.5 - 42	13.0	<1.00	17.1	<2.50	6.71	24.4

SB-9 (4/10/2001)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
10	12.0	<0.1	14.0	1.80	6.20	30.0
20	11.0	NA	22.0	1.40	6.70	33.0

SVMW-207 (6/28/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
3 - 4	7.46	<1.00	10.7	45.9	5.03	26.8
7.5 - 8.5	4.55	<1.00	7.30	<2.5	3.28	16.0
50.5 - 51.5	<2.5	<1.00	4.97	<2.5	<2.5	13.1

B3A (7/22/1997)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
5	7.7	NA	ND	ND	ND	ND
10	12.3	NA	ND	ND	ND	ND
15	8.7	NA	ND	ND	ND	ND
20	6.5	NA	ND	ND	ND	ND
25	9.3	NA	ND	ND	ND	ND

MS-1 (12/5/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
5 - 6	5.44	<2.50	15.0	<2.5	4.91	14.6
15 - 15.5	7.63	<2.50	15.1	<2.5	5.74	26.4

SVMW-211 (7/1/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
3 - 4	7.26	<1.00	6.92	<2.5	3.05	17.0
10.5 - 11.5	5.17	<1.00	12.8	<2.5	4.89	35.3

PSVE-2 (6/25/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1.5 - 2.5	3.44	<1.00	26.0	4.34	2.76	21.3
8 - 8.5	7.08	<1.00	15.8	3.52	4.9	22.5
55.5 - 56.5	7.69	<1.00	10.5	3.60	4.12	20.4

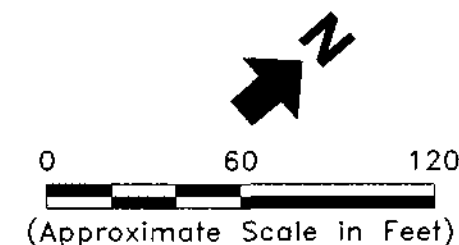
SB-7 (4/10/2001)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
5	6.00	<0.1	11.0	0.60	4.30	22.0
10	9.70	NA	19.0	1.10	6.10	29.0

B3C (7/23/1997)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
5	13.5	ND	ND	ND	ND	ND
10	8.0	ND	ND	ND	ND	ND
15	7.6	ND	ND	ND	ND	ND
20	6.3	ND	ND	ND	ND	ND
25	10.6	ND	ND	ND	ND	ND

SVMW-210 (6/27/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1 - 2	4.01	<1.00	7.04	4.34	2.85	54.0
7.5 - 8.5	7.03	<1.00	13.0	<2.5	5.26	20.5

PSVE-4 (6/25/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1.5 - 2.5	7.56	<1.00	6.80	<2.5	4.12	18.2
7.5 - 8.5	8.31	<1.00	8.79	3.18	5.17	30.7

SVMW-209 (6/25/2002)						
Depth	Total Chromium	Hexavalent Chromium	Copper	Lead	Nickel	Zinc
1.5 - 2.5	5.76	<1.00	7.54	<2.5	3.60	19.4
13 - 14	13.5	<1.00	17.8	<2.5	6.09	24.2



#### Legend:

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- - - - - Fence

#### Abbreviations

- <1.00 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.

#### Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for metals.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 26 for analytical results of soil samples collected in shaded area.
6. No metal concentrations in samples shown are greater than direct contact risk-based screening levels.

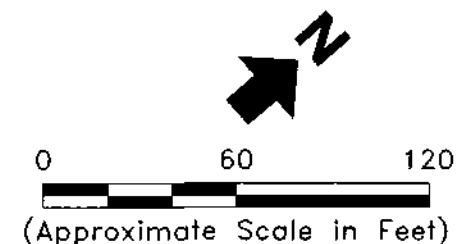
**Erler &  
Kalinowski, Inc.**

Sampling Results for Metals in Soil at  
Central Building P Area Excluding Plating  
Line and Wastewater Treatment System

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 22





**Legend:**

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- - - - - Fence

**Abbreviations:**

- SVOC = Semi-volatile organic compound
- <0.2 = Analyte not detected above analytical method reporting limit shown.

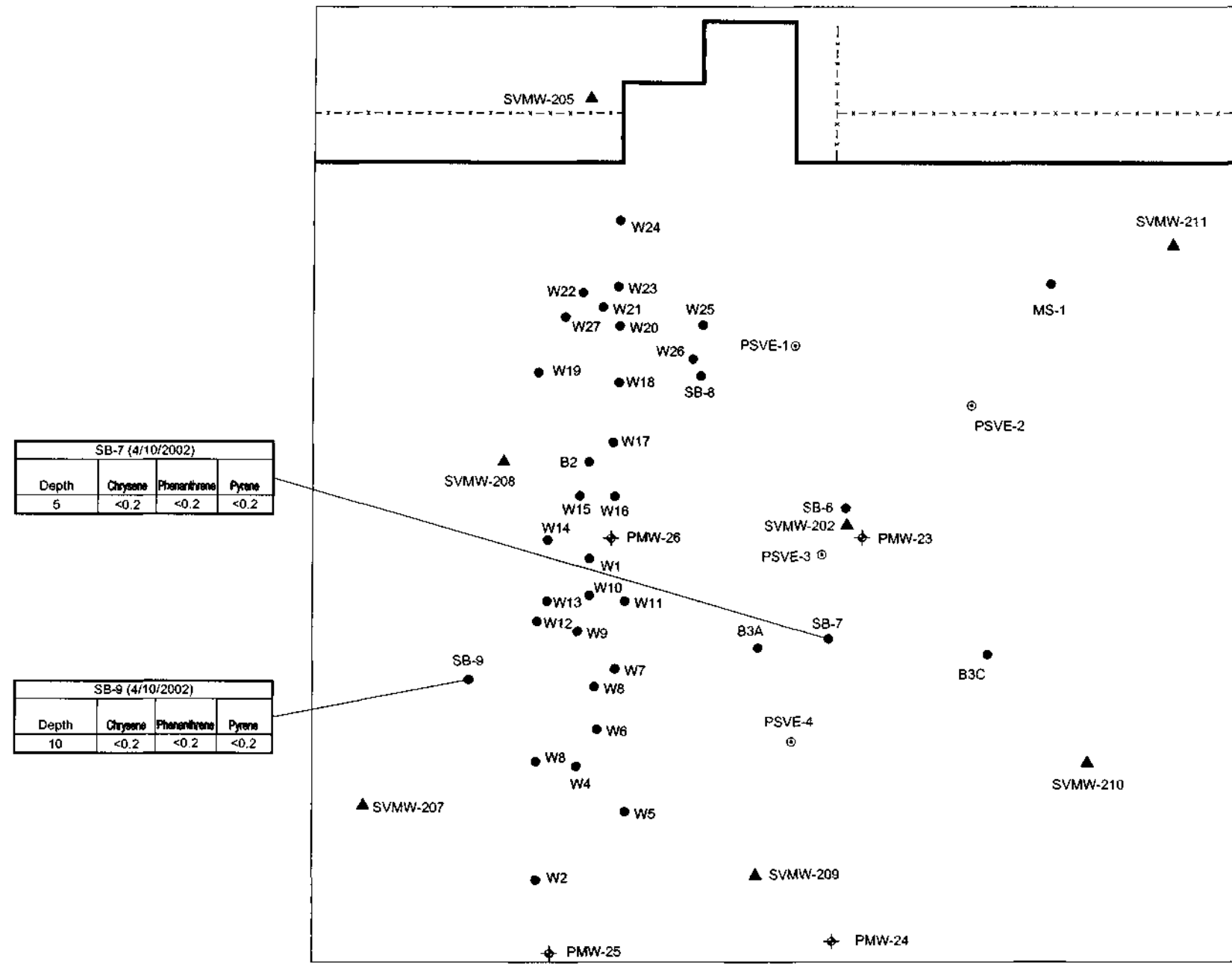
**Notes:**

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for SVOCs.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 27 for analytical results of soil samples collected in shaded area.
6. No SVOC concentrations in samples shown are greater than direct contact risk-based screening levels.

# **Erler & Kalinowski, Inc.**

Sampling Results for SVOCs in Soil at  
Central Building P Area Excluding Plating  
Line and Wastewater Treatment System

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
**Figure 23**





W22 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
11.5-12.5	<0.00138	<0.00138	<0.00138	<0.00138	<0.00138
26.5-27.5	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135

W27 (12/3/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3-4	0.00268	<0.00137	<0.00137	<0.00137	<0.00137

W19 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5-6	0.00417	<0.00118	<0.00118	<0.00118	<0.00118
10-10.5	<0.00145	<0.00145	<0.00145	<0.00145	<0.00145

B2 (7/22/1997)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5	0.230	0.003	0.003	ND	0.001
5 (Dup)	0.049	<0.002	<0.002	<0.002	<0.002
10	0.032	ND	ND	ND	ND
10 (Dup)	0.140	<0.002	<0.002	<0.002	<0.002
15	0.046	ND	ND	ND	ND
15 (Dup)	0.057	ND	ND	ND	ND
15 (Dup)	0.044	<0.002	<0.002	<0.002	<0.002
20	0.006	ND	ND	ND	ND
20 (Dup)	0.0086	<0.002	<0.002	<0.002	<0.002

W15 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
7.5-8.5	0.00352	<0.00150	<0.00150	<0.00150	<0.00150
12.5-13.5	0.0341	<0.00128	<0.00128	<0.00128	<0.00128
28-29	<0.00121	<0.00121	<0.00121	<0.00121	<0.00121

PMW-26 (12/3/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10-11	0.0247	<0.00126	<0.00126	<0.00126	<0.00126
25-25.5	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120

W14 (12/4/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1-2	0.0134	<0.00137	<0.00137	<0.00137	<0.00137
10-11	0.00758	<0.00133	<0.00133	<0.00133	<0.00133

W10 (12/4/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5-3	0.00275	<0.00121	<0.00121	<0.00121	<0.00121

W12 (12/4/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3-4	0.0547	<0.00130	<0.00130	<0.00130	<0.00130
17-18	<0.325	<0.325	<0.325	<0.325	<0.325

W9 (12/4/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1.5-2.5	0.00342	<0.00123	<0.00123	<0.00123	<0.00123
10-11	0.00624	<0.00135	<0.00135	<0.00135	<0.00135

W8 (12/3/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
7.5-8.5	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133
15-16	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126
25-26	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126

W3 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1-2	0.00332	<0.00144	<0.00144	<0.00144	<0.00144
10.5-11.5	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125

W4 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1-2	0.0376	<0.00132	<0.00132	<0.00132	<0.00132
10-11	0.0214	<0.00119	<0.00119	<0.00119	<0.00119

W2 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1-1.5	<0.00144	<0.00144	<0.00144	<0.00144	<0.00144
10-11	<0.00151	<0.00151	<0.00151	<0.00151	<0.00151

W24 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
6.5-7.5	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135

W23 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
4-5	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127
18-19	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124

W21 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
4-5	<0.00137	<0.00137	<0.00137	<0.00137	<0.00137
19-20	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124

W20 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5-6	<0.00128	<0.00128	<0.00128	<0.00128	<0.00128
19-20	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116

W25 (12/6/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1.5-2.5	0.0142	<0.00132	<0.00132	<0.00132	<0.00132
10-11	0.0255	<0.00121	<0.00121	<0.00121	<0.00121
20-21	6.31	<0.326	<0.326	<0.326	<0.326

W26 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1.5-2.5	3.52	<0.329	<0.329	<0.329	<0.329
10-11	1.80	<0.315	<0.315	<0.315	<0.315
25-26	3.32	<0.363	<0.363	<0.363	<0.363
35.5-36.5	0.0982	<0.00136	<0.00136	<0.00136	<0.00136

SB-8 (4/10/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10-10.5	0.036	<0.004	<0.004	<0.004	<0.004
15-15.5	0.120	<0.004	<0.004	<0.004	<0.004

W18 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
6.5-7.5	19.2	0.784	<0.372	<0.372	<0.372

W17 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10.5-11.5	0.00544	<0.00132	<0.00132	<0.00132	<0.00132
22-23	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133
32-33	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120

W16 (12/5/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8-9	0.0946	<0.00130	<0.00130	<0.00130	<0.00130
13-14	<0.00141	<0.00141	<0.00141	<0.00141	<0.00141
28-29	<0.00127	<0.00127	<0.00127	<0.00127	<0.00127

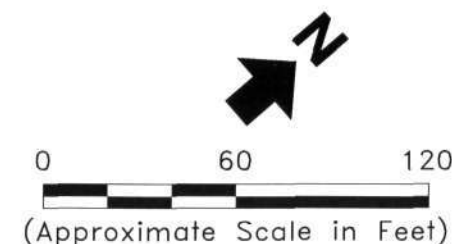
W1 (11/26/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1-1.5	0.0363	<0.00146	<0.00146	<0.00146	<0.00146
9.5-10	0.0289	<0.00125	<0.00125	<0.00125	<0.00125
25-25.5	0.0109	<0.00124	<0.00124	<0.00124	<0.00124
44.5-45	<0.00133	<0.00133	<0.00133	<0.00133	<0.00133

W11 (12/6/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10-11	<0.00142	<0.00142	<0.00142	<0.00142	<0.00142
20-21	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129

W7 (12/4/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5-5.5	0.0161	<0.00121	<0.00121	<0.00121	<0.00121
15-15.5	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126

W6 (12/3/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2-2.5	0.0778	<0.00133	<0.00133	<0.00133	<0.00133
5-6	0.0295	<0.00131	<0.00131	<0.00131	<0.00131

W5 (12/2/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1.5-2.5	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125
10-11	<0.00140	<0.00140	<0.00140	<0.00140	<0.00140



## Legend:

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- Location With VOC Concentrations Exceeding Direct Contact Risk-Based Screening Level
- - - - - Fence
- - - - - Former or Existing Trench

## Abbreviations:

- PCE = Tetrachloroethene
- 1,1,1-TCA = 1,1,1-trichloroethane
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-dichloroethene
- 1,1-DCE = 1,1-dichloroethene
- VOC = Volatile organic compound
- <0.004 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- Dup = Duplicate or sequential sample

## Notes:

1. All locations are approximate. See Note 1, Figure 3.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for VOCs.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 20 for analytical results of soil samples collected in shaded area.

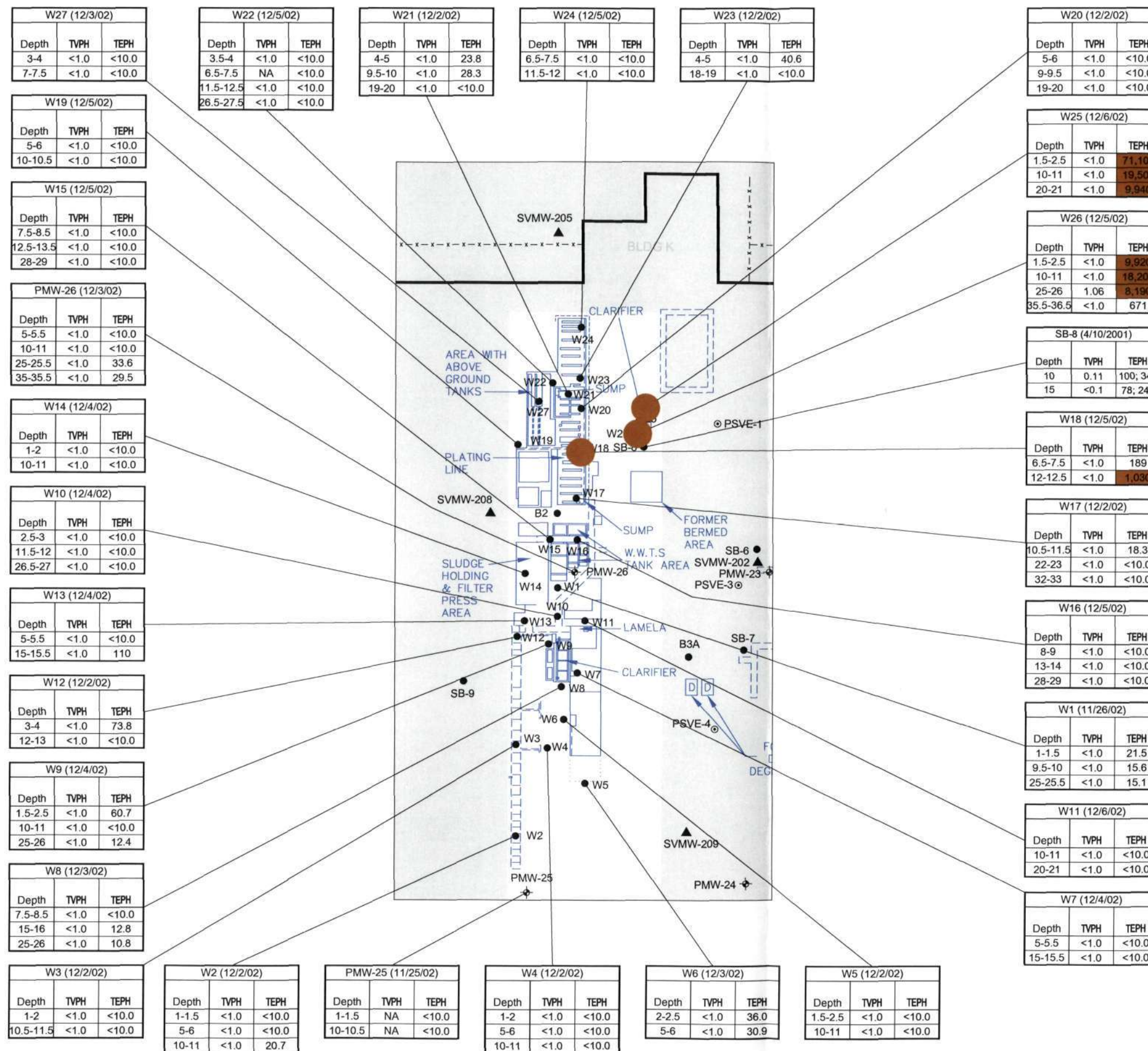
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Sampling Results for VOCs in Soil at  
Plating Line and Wastewater  
Treatment System Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
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Figure 24





# Legend:

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- Location With Total Extractable Petroleum Hydrocarbon Concentrations Exceeding Direct Contact Risk-Based Screening Level
- - - - - Fence
- - - - - Former or Existing Trench

## Abbreviations:

- TVPH = Total volatile petroleum hydrocarbons with carbon chain lengths between C<sub>6</sub> and C<sub>11</sub> (See Note 6)
- TEPH = Total extractable petroleum hydrocarbons with carbon chain lengths between C<sub>12</sub> and C<sub>36</sub> (See Note 7)
- <1 = Analyte not detected above analytical method reporting limit shown.

## Notes:

- All locations are approximate. See Note 1, Figure 3.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for petroleum hydrocarbons.
- Sample depths are in feet below ground or floor surface.
- Refer to Figure 21 for analytical results of soil samples collected in shaded area.
- For samples collected in 2001, the TVPH result indicates petroleum hydrocarbons in the C<sub>5</sub>-C<sub>10</sub> carbon chain length range.
- For samples collected in 2001, two TEPH results are listed. The first indicates petroleum hydrocarbons in the C<sub>10</sub>-C<sub>20</sub> carbon chain length range and the second indicates petroleum hydrocarbons in the C<sub>20</sub>-C<sub>30</sub> carbon chain length range.

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Petroleum Hydrocarbons in Soil at  
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Treatment System Area

Price Pfister, Inc.  
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Figure 25



W22 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
3.5-4	7.61	<2.50	297	21.3	12.6	20.2	<0.08
11.5-12.5	7.19	<2.50	159	11.2	10.1	21.4	0.29
26.5-27.5	7.20	<2.50	22.2	<2.5	4.26	19.4	<0.08

W27 (12/3/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
3-4	7.12	<2.50	9.71	<2.5	5.21	20.6	<0.08
7-7.5	6.57	<2.50	15.4	3.52	5.49	21.0	<0.08

W19 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
5-6	7.76	<2.50	35.3	7.99	8.51	26.0	<0.08
10-10.5	8.19	<2.50	11.1	<2.5	7.60	19.9	<0.08

B2 (7/22/1997)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
10	34.4	NA	60.1	ND	237	ND	NA
15	159	NA	424	ND	529	129	NA
15 (dup)	158	NA	578	6.80	357	ND	NA

W15 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
7.5-8.5	6.50	<2.50	16.7	5.48	4.35	39.0	<0.08
12.5-13.5	8.58	<2.50	19.7	6.43	5.70	47.7	<0.08
28-29	9.60	<2.50	16.2	<2.5	5.81	21.7	<0.08

PMW-26 (12/3/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
5-5.5	40.1	8.74	143	12.5	53.1	63.1	<0.08
10-11	38.3	8.67	50.4	8.71	47.8	59.9	<0.08
25-25.5	9.83	<2.50	12.8	<2.5	4.95	27.8	<0.08
35-35.5	7.14	<2.50	11.8	<2.5	4.21	19.9	<0.08

W14 (12/4/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1-2	8.31	<2.50	9.66	<2.5	5.91	20.1	<0.08
10-11	8.63	<2.50	21.9	3.75	5.29	99.7	<0.08

W10 (12/4/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
2.5-3	20.0	<2.50	81.1	5.75	126	35.0	<0.08
11.5-12	8.24	<2.50	13.7	<2.5	8.53	20.7	<0.08
26.5-27	11.0	<2.50	13.2	<2.5	10.2	22.2	<0.08

W13 (12/4/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
5-5.5	9.21	<2.50	21.3	<2.5	60.1	11.1	<0.08
15-15.5	9.69	<2.50	166	38.4	23.0	180	<0.08

W12 (12/4/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
3-4	263	5.50	189	63.3	1,100	61.8	<0.08
12-13	16.4	2.67	11.2	32.5	30.7	13.3	<0.08

W9 (12/1/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1.5-2.5	330	<2.50	103	41.2	124	58.0	0.37
10-11	27.4	5.09	16.2	103	21.0	18.5	0.14
25-26	27.1	<2.50	30.0	<2.5	29.0	25.9	<0.08

W8 (12/3/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
7.5-8.5	8.25	<2.50	10.3	<2.5	5.44	21.5	<0.08
15-16	8.94	5.57	11.6	<2.5	4.31	18.9	<0.08
25-26	16.1	6.88	13.6	<2.5	4.73	23.7	<0.08

W3 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1-2	7.27	<2.50	9.52	2.56	5.35	22.3	<0.25
10.5-11.5	5.51	<2.50	12.4	<2.5	3.81	15.5	<0.25

W4 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1-2	7.64	<2.50	9.25	<2.5	5.32	21.4	<0.25
5-6	6.47	<2.50	8.62	<2.5	4.85	17.5	<0.25
10-11	5.50	<2.50	12.7	3.28	4.68	22.4	<0.25

W2 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1-1.5	5.76	<2.50	16.7	5.20	6.10	24.8	<0.25
5-6	6.38	<2.50	11.6	5.07	11.3	20.4	<0.25
10-11	16.7	<2.50	28.4	211	21.4	38.4	<0.25

PMW-25 (11/25/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1-1.5	4.57	<2.50	14.2	4.27	3.37	33.7	NA
10-10.5	5.27	<2.50	8.06	<2.5	3.36	14.1	NA

W24 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
6.5-7.5	6.36	<2.50	8.06	<2.5	3.91	13.4	<0.08
11.5-12	7.26	<2.50	10.7	<2.5	5.54	17.7	<0.08

W23 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
4-5	16.3	<2.50	11.4	2.58	9.40	19.9	<0.25
18-19	9.76	<2.50	10.4	<2.5	5.06	25.1	<0.25

W21 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
4-5	6.58	<2.50	30.6	7.63	7.10	31.4	<0.25
9.5-10	6.96	<2.50	27.9	7.40	6.29	32.6	<0.25
19-20	6.66	<2.50	100	3.01	5.80	22.5	<0.25

W20 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
5-6	7.51	5.84	12.8	<2.5	32.5	12.7	<0.25
9-9.5	7.28	<2.50	10.3	<2.5	5.30	20.6	<0.25
19-20	8.68	<2.50	10.6	<2.5	9.00	22.3	<0.25

W25 (12/6/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1.5-2.5	95.0	2.88	949	1,970	492	796	<0.08
10-11	44.6	<2.50	261	257	321	452	<0.08
20-21	20.1	<2.50	22.2	3.85	22.9	29.1	<0.08

W26 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1.5-2.5	16.1	<2.50	59.0	25.4	131	34.8	<0.08
10-11	65.5	<2.50	295	304	703	251	<0.08
25-26	64.0	<2.50	92.7	4.46	217	60.1	<0.08
35.5-36.5	12.3	<2.50	13.5	<2.5	9.37	21.7	<0.08

SB-8 (4/10/2001)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
10	14.0	<0.1	67.0	7.90	50.0	83.0	NA
15	19.0	NA	46.0	6.40	53.0	67.0	NA

W18 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
6.5-7.5	5.87	<2.50	94.4	12.1	7.01	38.0	<0.08
12-12.5	10.3	<2.50	27.5	4.50	7.91	26.0	<0.08

W17 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
10.5-11.5	50.2	15.7	137	9.38	187	43.3	<0.25
22-23	65.1	22.8	193	<2.5	218	56.9	<0.25
32-33	34.3	13.0	70.2	<2.5	129	35.5	<0.25

W16 (12/5/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
8-9	7.74	<2.50	18.9	8.27	4.75	46.8	<0.08
13-14	17.2	<2.50	15.5	<2.5	6.67	24.1	<0.08
28-29	13.0	3.77	16.0	<2.5	9.39	22.0	<0.08

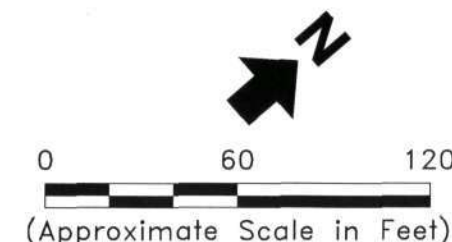
W1 (11/26/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1-1.5	6.32	<2.50	13.5	4.27	4.73	23.4	<0.25
9.5-10	6.40	<2.50	8.64	<2.5	26.8	17.7	<0.25
25-25.5	8.90	<2.50	14.3	<2.5	6.18	24.4	<0.25

W11 (12/6/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
10-11	29.3	<2.50	6.55	<2.5	<2.5	17.4	<0.08
20-21	5.45	<2.50	14.8	<2.5	3.99	21.8	<0.08

W7 (12/4/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
5-5.5	16.5	<2.50	41.1	7.29	19.6	25.4	0.39
15-15.5	13.6	<2.50	12.9	<2.5	6.19	21.7	<0.08

W6 (12/3/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
2-2.5	5.94	<2.50	13.9	7.92	4.40	37.2	<0.08
5-6	7.00	<2.50	11.5	4.59	4.67	30.1	<0.08

W5 (12/2/02)							
Depth	Tot Cr	Hex Cr	Copper	Lead	Nickel	Zinc	Cyanide
1.5-2.5	7.77	<2.50	10.2	<2.5	5.67	22.3	0.58
10-11	5.89	<2.50	10.4	<2.5	5.29	21.5	<0.25



## Legend:

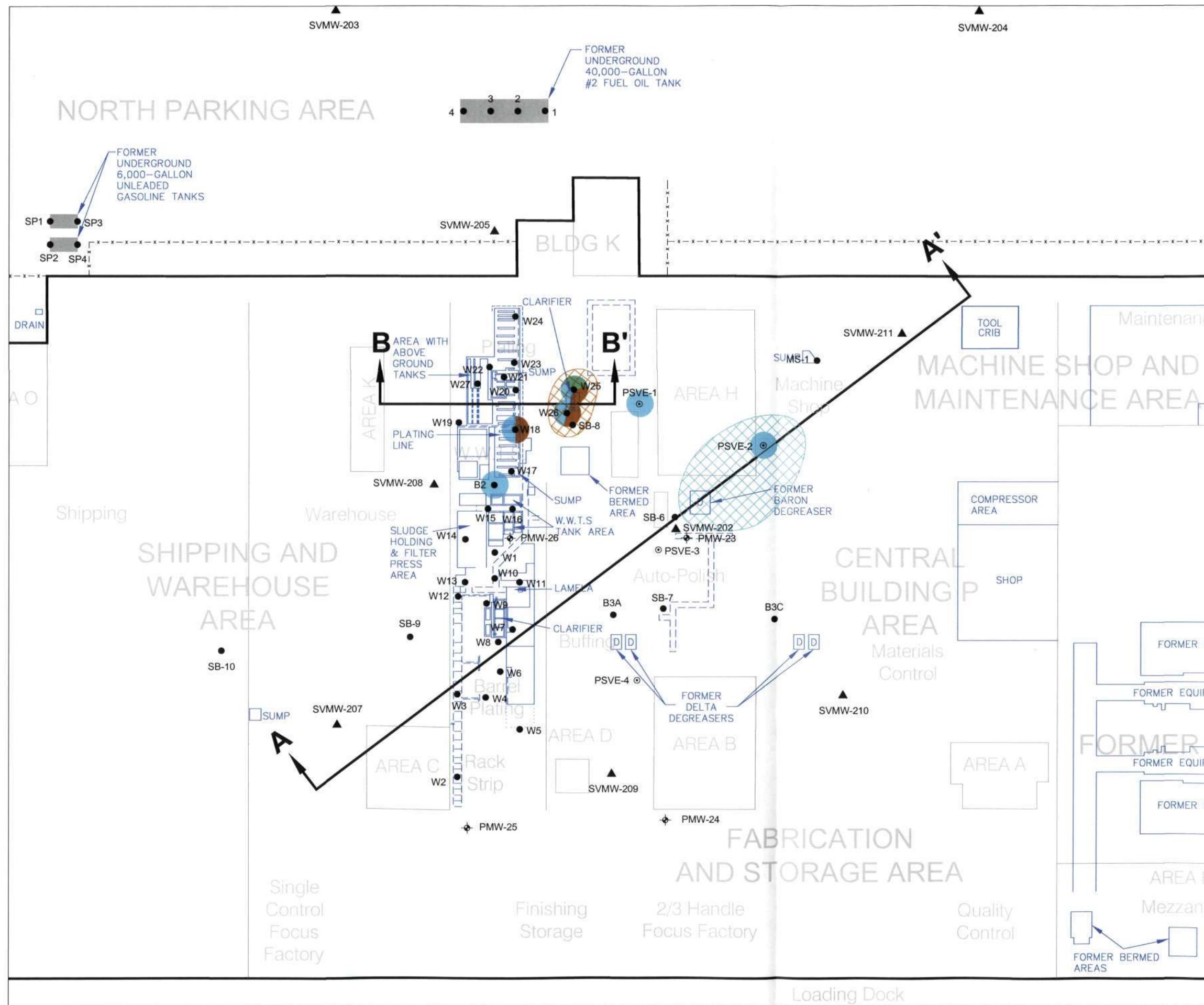
- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- Location With Metal Concentrations Exceeding Direct Contact Risk-Based Screening Level
- - - - - Fence
- - - - - Former or Existing Trench

## Abbreviations









(Approximate Scale in Feet)

**Legend:**

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- Soil Vapor Extraction Well
- Former Above Ground or Underground Storage Tank or Process Unit
- Existing Interior Wall or Office
- - - Out-of-Service Railroad Spur
- x - x - x - Fence
- - - - - Former or Existing Trench
- A A' Cross-Section Location
- Location Where PCE is Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where PCE May Be Present in Soil Above Direct Contact Risk-Based Screening Level
- Location Where Metals are Present in Soil Above Direct Contact Risk-Based Screening Level
- Location Where Total Extractable Petroleum Hydrocarbons are Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where Total Extractable Petroleum Hydrocarbons May Be Present in Soil Above Direct Contact Risk-Based Screening Level

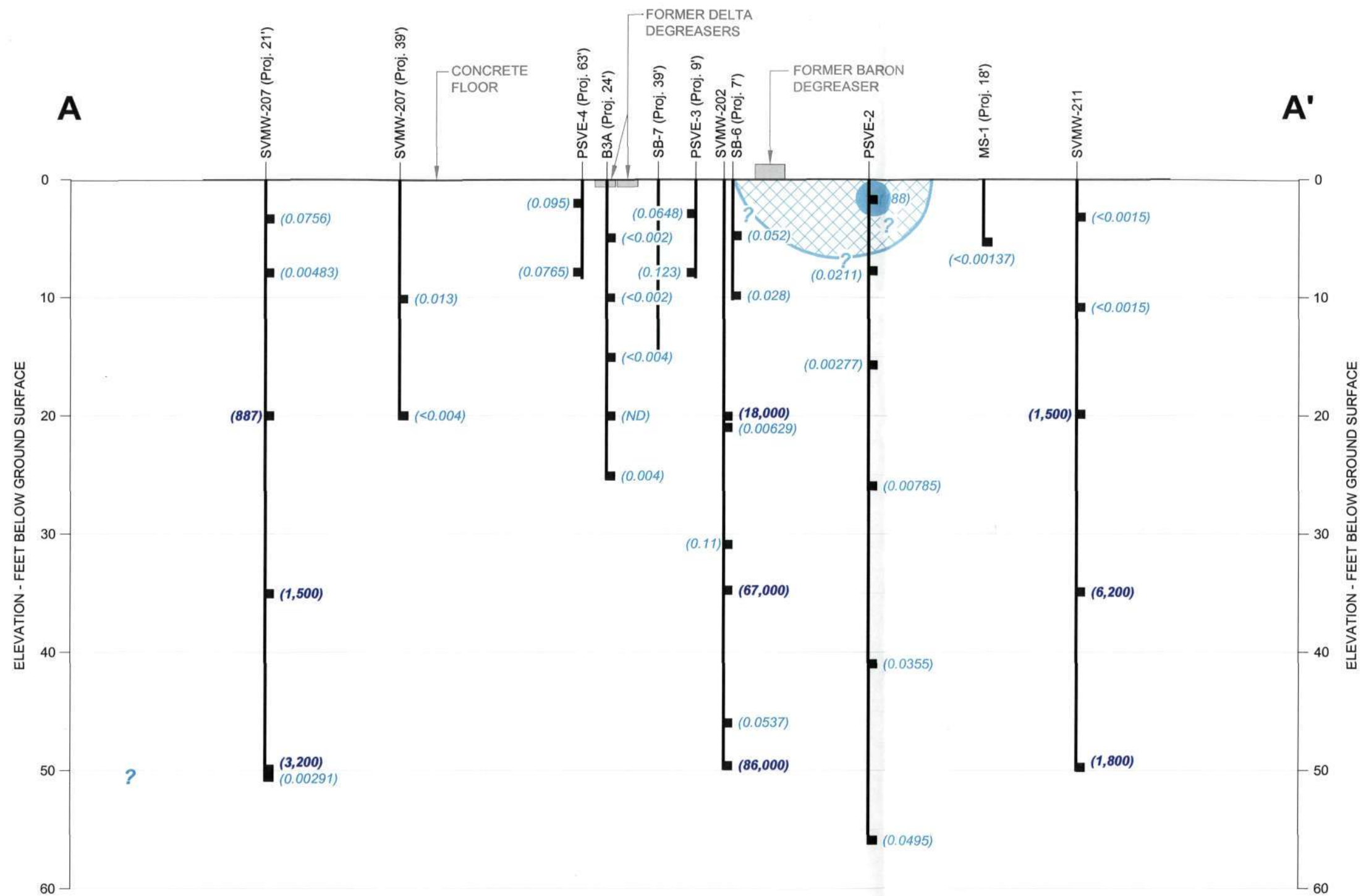
**Abbreviations:**

PCE = Tetrachloroethene  
 µg/L = micrograms per liter

**Notes:**

1. All locations are approximate. See Note 1, Figure 3.





## CROSS-SECTION A-A'

10 FEET  
60 FEET

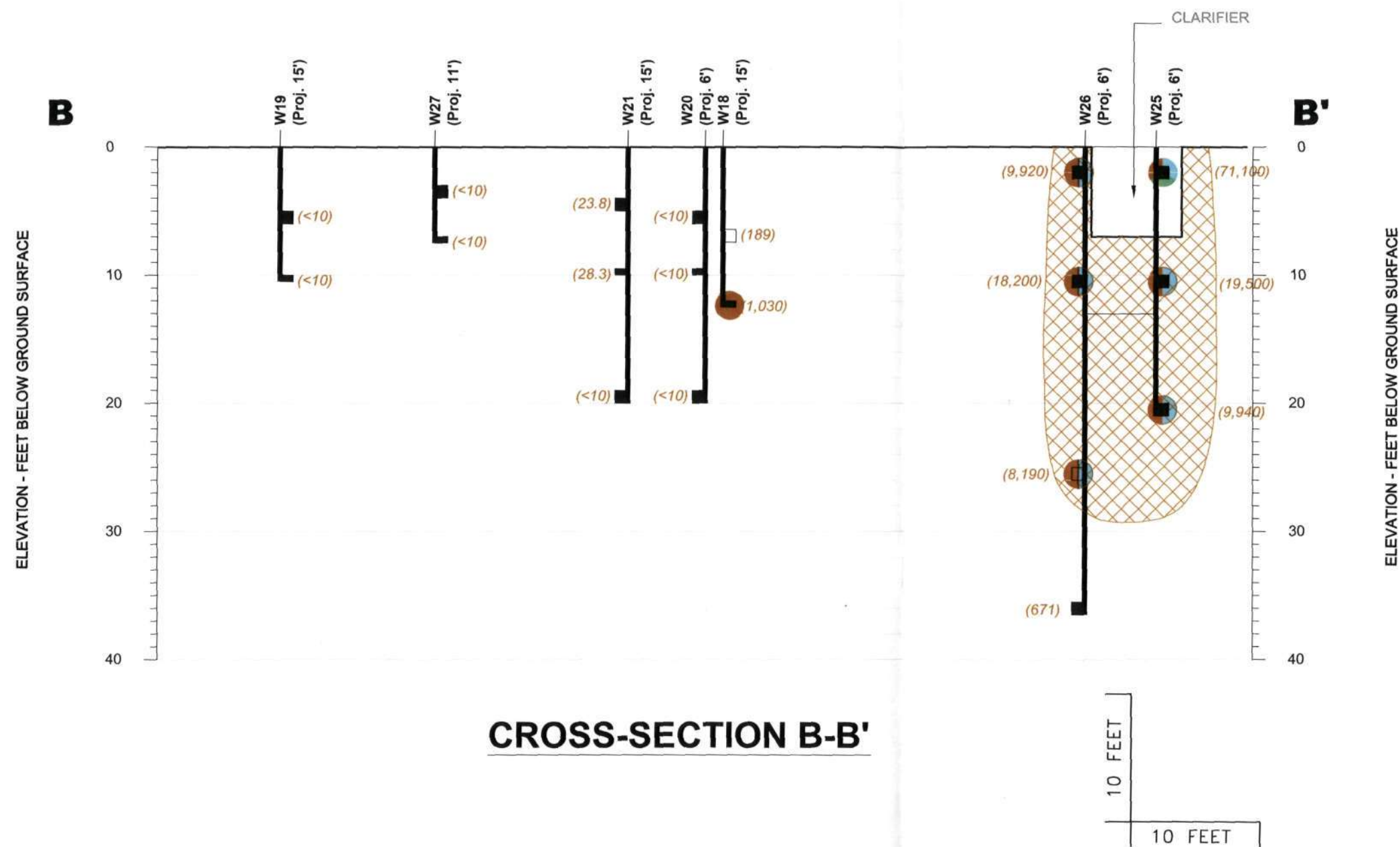
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Cross-Section A-A'  
at Central Building P Area

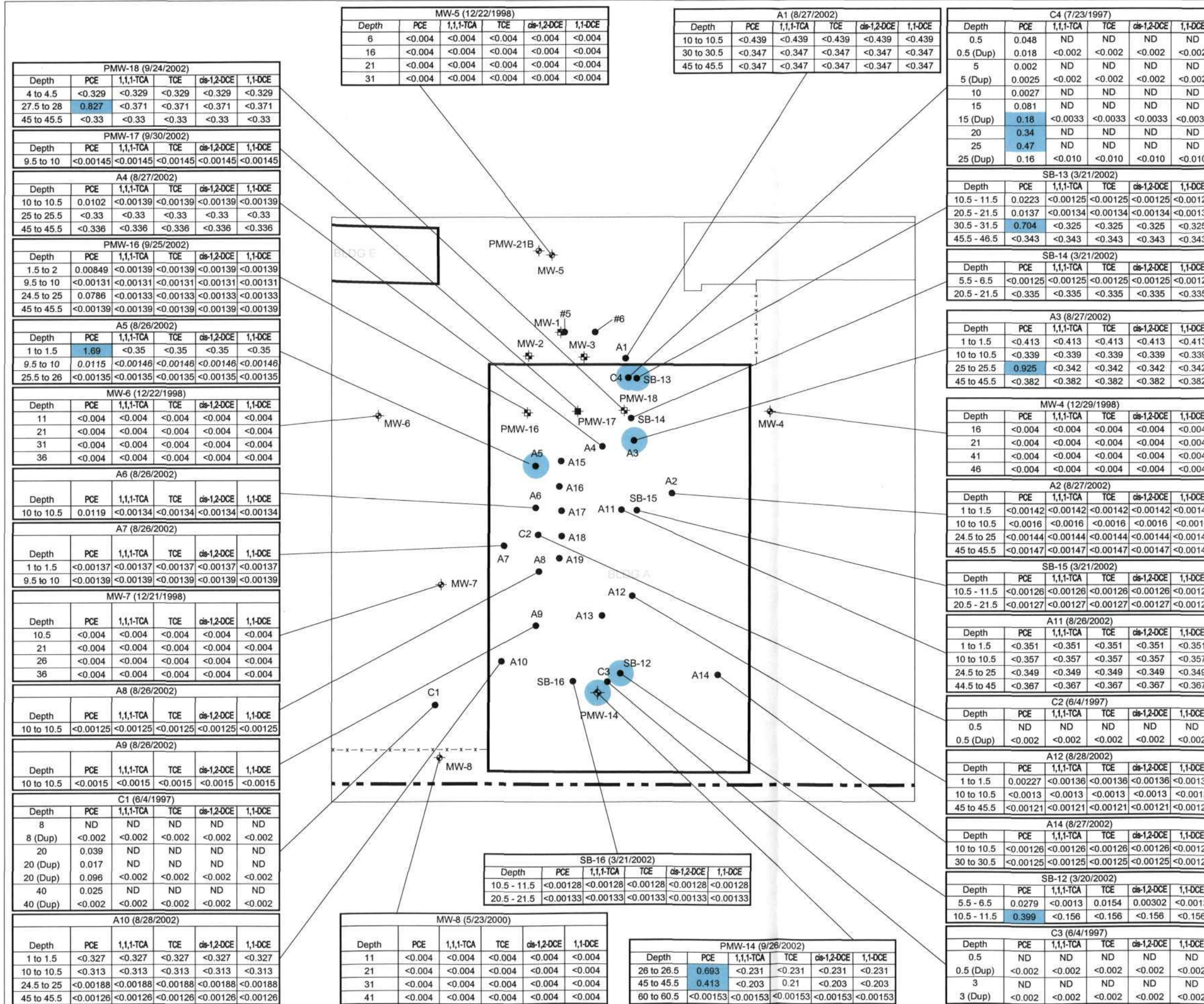
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February 2003  
EKI A20034.03

Figure 29









0 60 120  
(Approximate Scale in Feet)

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Sampling Results for VOCs in Soil at Building A Area

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February 2003  
EKI A20034.03

Figure 31



PMW-16 (9/25/2002)		
Depth	TVPH	TEPH
1 to 1.5	<1	<10
11 to 11.5	<1	<10
24.5 to 25	<1	5,110
45 to 45.5	<1	<10

A4 (8/27/2002)		
Depth	TVPH	TEPH
4.5 to 5	<1	634
10 to 10.5	<1	824
15 to 15.5	<1	54.7
25 to 25.5	1.47	13,000
45 to 45.5	<1	1,530

A5 (8/26/2002)		
Depth	TVPH	TEPH
1 to 1.5	<1	8,620
5 to 5.5	<1	487
9.5 to 10	<1	85.6
25.5 to 26	<1	<10

MW-6 (12/22/1998)		
Depth	TVPH	TEPH
11	<0.1	<10
21	<0.1	<10
31	<0.1	<10
36	<0.1	<10

A6 (8/26/2002)		
Depth	TVPH	TEPH
5 to 5.5	<1	403
10 to 10.5	<1	160
15 to 15.5	<1	286
25 to 25.5	<1	<10

A7 (8/26/2002)		
Depth	TVPH	TEPH
1 to 1.5	<1	<10
5 to 5.5	<1	<10
9.5 to 10	<1	<10
14.5 to 15	<1	<10
25 to 25.5	<1	<10

MW-7 (12/21/98)		
Depth	TVPH	TEPH
10.5	<0.1	73; <100
21	<0.1	<10; <100
26	<0.1	<10; <100
36	<0.1	52; <100

A8 (8/26/2002)		
Depth	TVPH	TEPH
4.5 to 5	<1	<10
10 to 10.5	<1	<10
14.5 to 15	<1	<10
25 to 25.5	<1	<10

A10 (8/28/2002)		
Depth	TVPH	TEPH
1 to 1.5	1.91	7,590
5.5 to 6	1.35	1,230
10 to 10.5	1.44	10,700
15 to 15.5	1.91	7,340
24.5 to 25	<1	140
45 to 45.5	<1	<10

Boring C/MW-1 (2/4/1986)		
Depth	TVPH	TEPH
5	NA	400
10	NA	6,500
15	NA	440
20	NA	9,300
30	NA	8,400
40	NA	2,200

Boring C/MW-1 (2/26/1986)		
Depth	TVPH	TEPH
40	NA	3,300
50	NA	28
60	NA	16

PMW-17 (9/30/2002)		
Depth	TVPH	TEPH
4.5 to 5	<1	287
9.5 to 10	<1	136
24.5 to 25	<1	<10
47.5 to 48	<1	846

#5 (7/19/1984)		
Depth	TVPH	TEPH
10	11	8.0
10 (Dup)	ND	ND

MW-5 (12/22/1998)		
Depth	TVPH	TEPH
6	<0.1	<10
16	<0.1	<10
21	<0.1	<10
31	<0.1	<10

A1 (8/27/2002)		
Depth	TVPH	TEPH
5 to 5.5	<1	20,700
10 to 10.5	<1	17,000
15 to 15.5	<1	15,100
25 to 25.5	<1	9,040
45 to 45.5	1.86	15,300

#6 (7/19/1984)		
Depth	TVPH	TEPH
10	6,561	6,566
10 (Dup)	6,100	1,600

PMW-18 (9/24/2002)		
Depth	TVPH	TEPH
4 to 4.5	<1	8,450
20.5 to 21	<1	17,500
29.5 to 30	1.54	20,100
44.5 to 45	<1	975

SB-13 (3/21/2002)		
Depth	TVPH	TEPH
10.5 - 11.5	<1	24,300
20.5 - 21.5	<1	4,900
30.5 - 31.5	<1	28,100
45.5 - 46.5	<1	12,600

SB-14 (3/21/2002)		
Depth	TVPH	TEPH
5.5 - 6.5	<1	3,040
20.5 - 21.5	<1	8,700

A3 (8/27/2002)		
Depth	TVPH	TEPH
1 to 1.5	<1	14,600
5 to 5.5	<1	9,560
10 to 10.5	1.07	14,000
15 to 15.5	<1	25,900
25 to 25.5	<1	24,100
45 to 45.5	<1	9,050

MW-4 (12/29/98)		
Depth	TVPH	TEPH
16	<0.1	180; <100
21	<0.1	110; <100
41	<0.1	74; <100
46	<0.1	<10; <100

A2 (8/27/2002)		
Depth	TVPH	TEPH
1 to 1.5	<1	<10
4.5 to 5	<1	<10
10 to 10.5	<1	<10
15 to 15.5	<1	<10
24.5 to 25	<1	77.7
45 to 45.5	<1	<10

SB-15 (3/21/2002)		
Depth	TVPH	TEPH
10.5 - 11.5	<1	17.6
20.5 - 21.5	<1	430

A11 (8/26/2002)		
Depth	TVPH	TEPH
1 to 1.5	3.53	24,300
5 to 5.5	3.72	28,900
10 to 10.5	<1	11,200
15 to 15.5	<1	12,900
24.5 to 25	1.15	10,300
44.5 to 45	1.08	18,300

A12 (8/28/2002)		
Depth	TVPH	TEPH
1 to 1.5	<1	4,060
5 to 5.5	<1	1,960
10 to 10.5	<1	30.3
15 to 15.5	<1	34.7
25 to 25.5	<1	<10
45 to 45.5	<1	<10

A14 (8/27/2002)		
Depth	TVPH	TEPH
5 to 5.5	<1	<10
10 to 10.5	<1	<10
15 to 15.5	<1	<10
30 to 30.5	<1	<10

A13 (8/28/2002)		
Depth	TVPH	TEPH
4.5 to 5	<1	167

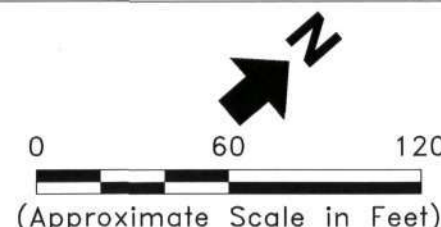
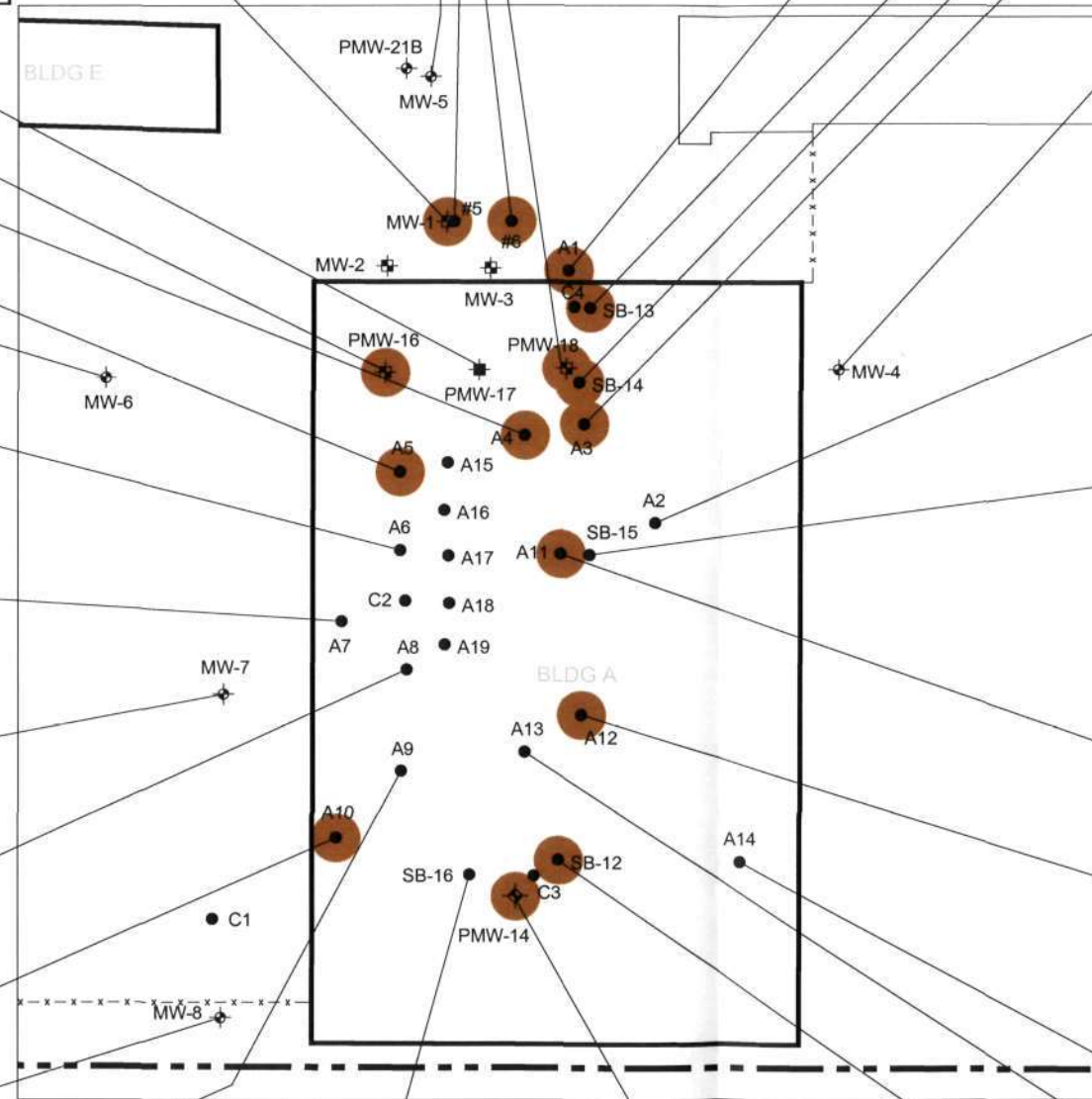
MW-8 (15/23/2000)		
Depth	TVPH	TEPH
11	<0.1	<10
21	<0.1	<10
31	<0.1	<10
41	<0.1	<10

A9 (8/26/2002)		
Depth	TVPH	TEPH
5 to 5.5	<1	61.3
10 to 10.5	<1	<10
15 to 15.5	<1	<10
25 to 25.5	<1	<10

SB-16 (3/21/2002)		
Depth	TVPH	TEPH
10.5 - 11.5	<1	<10
20.5 - 21.5	<1	29.9

PMW-14 (9/26/2002)		
Depth	TVPH	TEPH
11.5 to 12	<1	<10
24.5 to 25	<1	7,200
39.5 to 40	<1	4,200
60 to 60.5	<1	<10

SB-12 (3/20/2002)		
Depth	TVPH	TEPH
5.5 - 6.5	<1	7,310
10.5 - 11.5	3.37	32,400
20 - 21	<1	415
25.5 - 26.5	<1	353



- Legend:** (Approximate Scale in Feet)
- Soil Sample
  - ⊕ Groundwater Monitoring Well
  - ⊕ Soil Vapor/Groundwater Monitoring Well
  - ⊕ Free Hydrocarbon Product Collection Well
  - ⊕ Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
  - Location With Total Extractable Petroleum Hydrocarbon Concentrations Exceeding Direct Contact Risk-Based Screening Level
  - - - - - Approximate Property Boundary
  - x - x - x - x - x - Fence

- Abbreviations:**
- TVPH = Total volatile petroleum hydrocarbons with carbon chain lengths between C<sub>6</sub> and C<sub>11</sub> (See Note 5)
  - TEPH = Total extractable petroleum hydrocarbons with carbon chain lengths between C<sub>12</sub> and C<sub>36</sub> (See Note 6)
  - <1 = Analyte not detected above analytical method reporting limit shown.
  - ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
  - NA = Sample not tested for this analyte or result not available.
  - Dup = Duplicate or sequential sample

- Notes:**
1. All locations are approximate.
  2. Analytical results are in milligrams per kilogram.
  3. Sample locations with no data posted were not analyzed for petroleum hydrocarbons.
  4. Sample depths are in feet below ground or floor surface.
  5. For samples collected in 2001, the TVPH result indicates petroleum hydrocarbons in the C<sub>5</sub>-C<sub>10</sub> carbon chain length range.
  6. For samples collected in 2001, two TEPH results are listed. The first indicates petroleum hydrocarbons in the C<sub>10</sub>-C<sub>20</sub> carbon chain length range and the second indicates petroleum hydrocarbons in the C<sub>20</sub>-C<sub>30</sub> carbon chain length range.
  7. Soil described by samples #5 and #6 may have been removed.

**Erler & Kalinowski, Inc.**

Petroleum Hydrocarbons in Soil at Building A Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 32



C4 (7/23/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
0.5	5.6	ND	ND	ND	ND
5	4.4	ND	ND	ND	ND
10	8.1	ND	ND	ND	ND
15	3.9	ND	ND	ND	ND
20	6.5	ND	ND	ND	ND
25	10	ND	ND	ND	ND

PMW-17 (9/30/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
9.5 to 10	25.6	40.3	7.57	5.34	1,750

A4 (8/27/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	6.30	10.0	<2.50	3.96	20.3

PMW-16 (9/25/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
11 to 11.5	9.71	13.7	<2.50	6.85	26.5

A5 (8/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5 to 5.5	3.21	7.21	<2.50	2.65	12.8
9.5 to 10	7.89	11.2	<2.50	4.43	43.8

A6 (8/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5 to 5.5	NA	NA	NA	NA	NA
10 to 10.5	12.9	10.2	<2.50	3.92	25.7
15 to 15.5	NA	NA	NA	NA	NA

C2 (6/4/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
0.5	13.1	ND	ND	ND	ND

A7 (8/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5 to 5.5	NA	NA	NA	NA	NA
9.5 to 10	9.16	10.2	<2.50	4.25	17.2
14.5 to 15	NA	NA	NA	NA	NA

A8 (8/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
4.5 to 5	6.83	200	12.5	3.51	112
10 to 10.5	10.6	11.8	<2.5	4.48	19.1
14.5 to 15	NA	NA	NA	NA	NA

C1 (6/4/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
8	8.2	ND	1.7	5.4	105
20	14.2	ND	2.9	9.5	50.6
20	12.8	ND	4.2	6.9	48
40	13	ND	ND	ND	ND

A10 (8/28/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	11.5	10.7	6.49	4.87	19.9

A9 (8/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	4.15	14.8	<2.50	2.62	13.2

SB-16 (3/21/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5.5 - 6.5	5.33	10.7	<5.00	<5	26.7
10.5 - 11.5	<5	15.6	<5.00	5.91	22.9

A1 (8/27/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	6.45	236	3,986	4.45	269

SB-13 (3/21/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5.5 - 6.5	5.75	21.9	12.1	<5	31.2
15.5 - 16.5	9.94	14.0	9.61	5.52	29.0

PMW-18 (9/24/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
4 to 4.5	5.44	50.0	41.2	2.95	38.2
20.5 to 21	15.0	14.8	<2.5	5.55	25.3

SB-14 (3/21/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5.5 - 6.5	<5	15.1	8.84	<5	23.2
15.5 - 16.5	6.81	15.0	<5	5.82	27.1

A3 (8/27/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	4.15	15.9	29.5	3.97	18.8

A11 (8/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	20.1	13.7	<2.50	5.29	24.6

A2 (8/27/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
4.5 to 5	3.58	7.43	<2.5	3.39	12.6
10 to 10.5	7.33	15.7	4.06	5.68	19.8

SB-15 (3/21/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5.5 - 6.5	5.06	10.6	<5.00	<5	22
10.5 - 11.5	5.74	15.8	<5.00	5.75	38.3

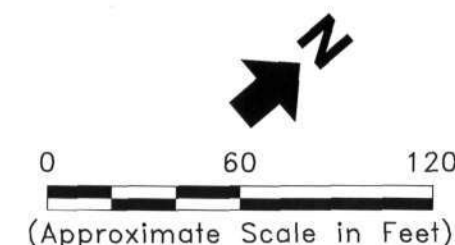
A12 (8/28/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10 to 10.5	5.36	43.2	<2.50	25.8	17.4

A14 (8/27/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5 to 5.5	5.22	7.55	6.34	3.92	24.3
10 to 10.5	5.53	9.39	4.79	4.88	27

SB-12 (3/20/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5.5 - 6.5	<5	7.26	<5	<5	16.7
10.5 - 11.5	9.91	10.9	12.3	5.70	45.1

C3 (6/4/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
0.5	15	ND	ND	ND	ND
3	5.0	ND	ND	ND	ND

PMW-14 (9/26/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
24.5 to 25	12.9	8.06	<2.50	3.91	17.6
39.5 to 40	5.24	12.5	<2.50	4.13	22



## Legend:

- Soil Sample
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor / Groundwater Monitoring Well
- ⊕ Free Hydrocarbon Product Collection Well
- ⊕ Soil Vapor Monitoring / Free Hydrocarbon Product Collection Well
- Location With Metal Concentrations Exceeding Direct Contact Risk-Based Screening Level
- - - - - Approximate Property Boundary
- x - x - x - x - x - Fence

## Abbreviations

- <2.50 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.

## Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Sample locations with no data posted were not analyzed for metals.
4. Sample depths are in feet below ground or floor surface.

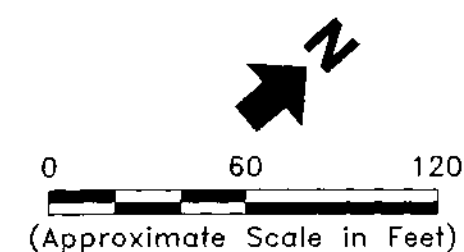
# Erler & Kalinowski, Inc.

## Sampling Results for Metals in Soil at Building A Area

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Pacoima, CA  
February 2003  
EKI A20034.03

Figure 33





**Legend:**

- Soil Sample
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- ⊕ Free Hydrocarbon Product Collection Well
- ⊕ Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well

--- Approximate Property Boundary  
- - - - - Fence

**Abbreviations:**

- SVOC = Semi-volatile organic compound
- PCBs = Polychlorinated biphenyls
- <0.500 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.
- Dup = Duplicate or sequential sample

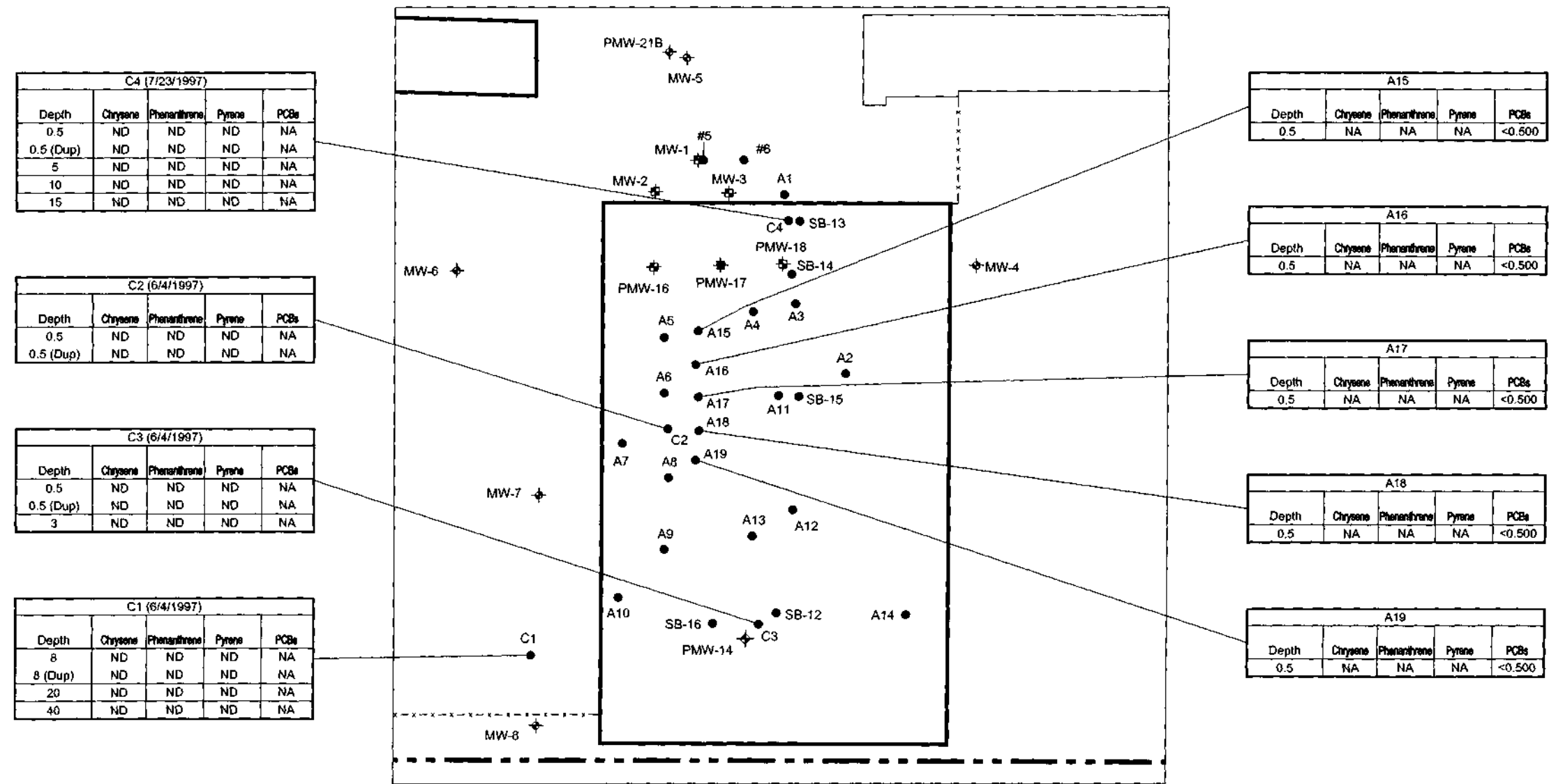
**Notes:**

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Sample locations with no data posted were not analyzed for SVOCs or PCBs.
4. Sample depths are in feet below ground or floor surface.
5. At sample locations A15 through A19, concrete floor slab was also analyzed for PCBs but none were detected.
6. No SVOC or PCB concentrations in samples shown are greater than direct contact risk-based screening levels.

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## Sampling Results for SVOCs and PCBs in Soil at Building A Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 34



C4 (7/23/1997)				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	ND	ND	ND	NA
0.5 (Dup)	ND	ND	ND	NA
5	ND	ND	ND	NA
10	ND	ND	ND	NA
15	ND	ND	ND	NA

C2 (6/4/1997)				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	ND	ND	ND	NA
0.5 (Dup)	ND	ND	ND	NA

C3 (6/4/1997)				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	ND	ND	ND	NA
0.5 (Dup)	ND	ND	ND	NA
3	ND	ND	ND	NA

C1 (6/4/1997)				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
8	ND	ND	ND	NA
8 (Dup)	ND	ND	ND	NA
20	ND	ND	ND	NA
40	ND	ND	ND	NA

A15				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	NA	NA	NA	<0.500

A16				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	NA	NA	NA	<0.500

A17				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	NA	NA	NA	<0.500

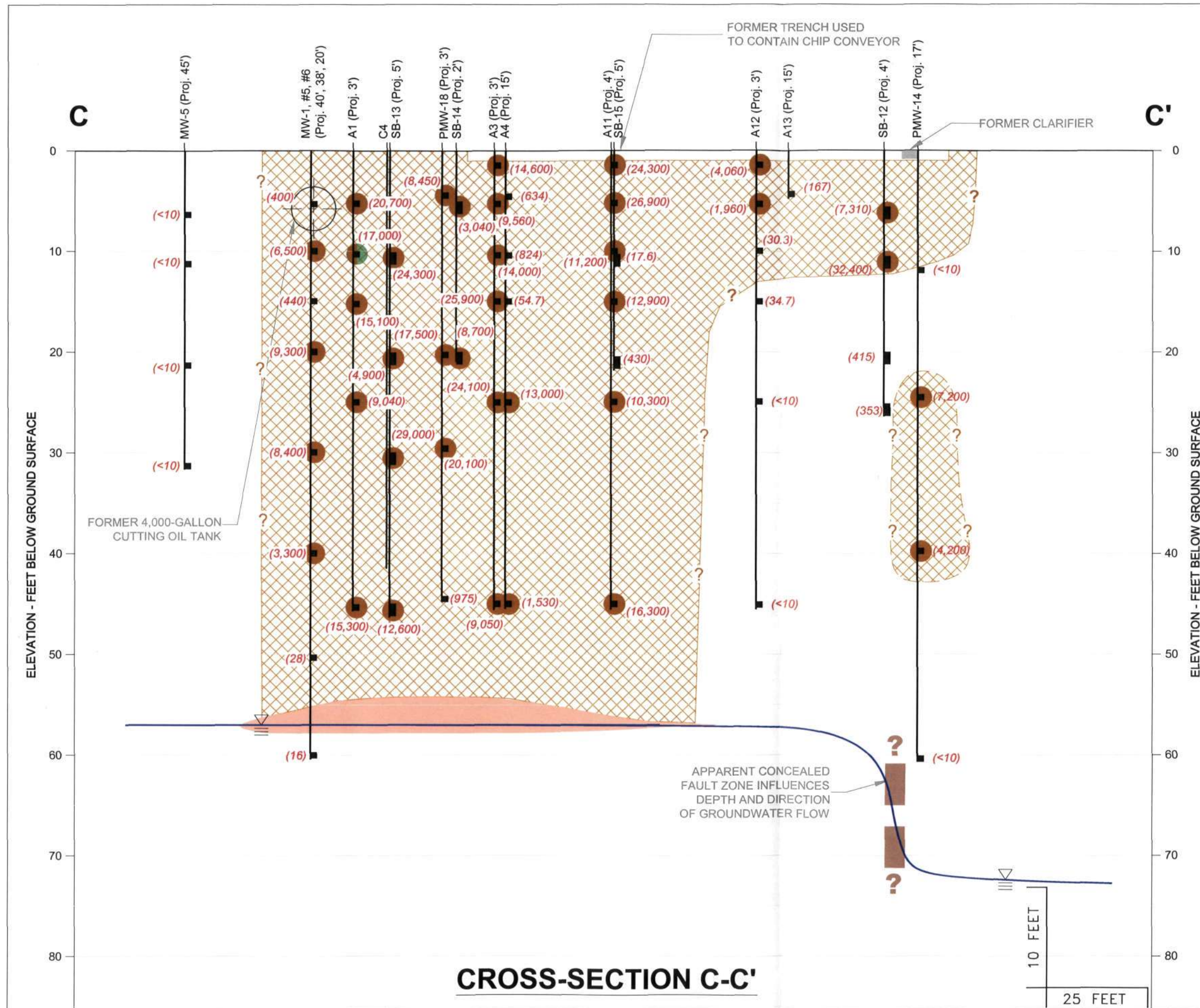
A18				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	NA	NA	NA	<0.500

A19				
Depth	Chrysene	Phenanthrene	Pyrene	PCBs
0.5	NA	NA	NA	<0.500









### Legend:

- PSVE-6 (Proj. 7')
- Boring or Well Identification with Projected Distance
- (15,000) Sample Location with Petroleum Hydrocarbon Concentration in Soil
- Former Underground Storage Tank
- Approximate Groundwater Level Measured in Monitoring Wells
- Location Where Total Extractable Petroleum Hydrocarbons in Soil are Above Direct Contact Risk-Based Screening Level
- Location Where Metals are Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where Total Extractable Petroleum Hydrocarbons in Soil May Be Above Direct Contact Risk-Based Screening Level
- Approximate Extent of Free Hydrocarbon Product on Groundwater

### Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.

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Cross-Section C-C'  
at Building A Area

Price Pfister, Inc.  
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February 2003  
EKI A20034.03

Figure 36



SB-1 (4/11/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10	0.027	<0.004	<0.004	<0.004	<0.004
15	<0.004	<0.004	<0.004	<0.004	<0.004

SB-11 (3/19/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
20 - 21	35.6	<0.369	<0.369	<0.369	<0.369
30 - 31	17.3	<0.179	<0.179	<0.179	<0.179
45.5 - 46.5	0.0338	<0.00128	<0.00128	<0.00128	<0.00128

SB-2 (4/11/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10	7.0	<0.004	<0.004	<0.004	<0.004
15	8.2	<0.004	<0.004	<0.004	<0.004

PSVE-7 (7/8/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129
7.5 - 8.5	0.00999	<0.00151	<0.00151	<0.00151	<0.00151

PSVE-5 (7/9/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
3.5 - 4.5	0.0478	<0.00131	<0.00131	<0.00131	<0.00131
10.5 - 11.5	0.00615	<0.00144	<0.00144	<0.00144	<0.00144

D2 (6/5/1997)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8	ND	ND	ND	ND	ND
8 (Dup)	0.02	<0.002	<0.002	<0.002	<0.002
18	ND	ND	ND	ND	ND
18 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002
40	ND	ND	ND	ND	ND
40 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002

SVMW-214 (7/9/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	0.138	0.00513	0.00537	<0.00142	0.0049
7 - 8	0.135	0.00265	0.00247	<0.00131	0.00165

D1 (6/5/1997)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8	ND	ND	ND	ND	ND
8 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002
20	ND	ND	ND	ND	ND
20 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002
40	ND	ND	ND	ND	ND

D3 (6/5/1997)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8	ND	ND	ND	ND	ND
8 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002
20	ND	ND	ND	ND	ND
20 (Dup)	0.0035	<0.002	<0.002	<0.002	<0.002
40	0.003	ND	ND	ND	ND
40 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002

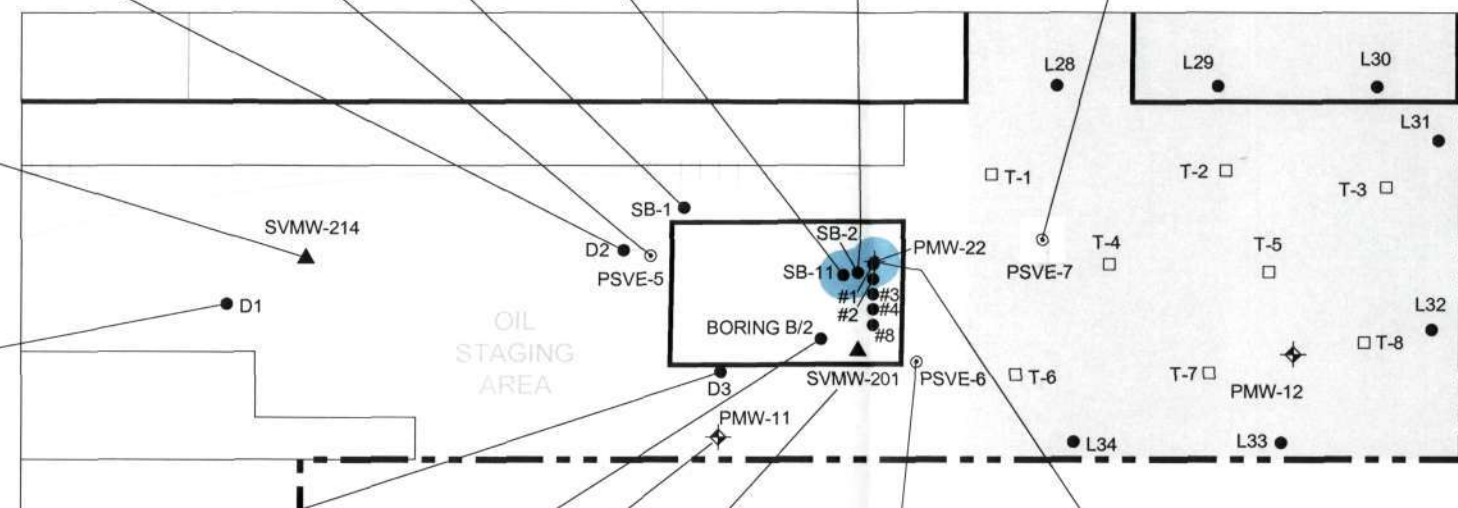
Boring B/2 (10/30/1985)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10	<0.005	<0.005	<0.005	NA	<0.005
20	<0.005	<0.005	<0.005	NA	<0.005
30	<0.005	<0.005	<0.005	NA	<0.005
40	<0.005	<0.005	<0.005	NA	<0.005
50	<0.005	<0.005	<0.005	NA	<0.005
55	<0.005	<0.005	<0.005	NA	<0.005

PMW-11 (7/10/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	0.00164	<0.00142	<0.00142	<0.00142	<0.00142
7 - 8	0.00188	<0.00142	<0.00142	<0.00142	<0.00142

SVMW-201 (3/19/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10 - 11	0.0129	<0.00127	<0.00127	<0.00127	<0.00127
15 - 16	0.00582	<0.00133	<0.00133	<0.00133	<0.00133
20.5 - 21.5	0.0143	<0.00144	<0.00144	<0.00144	<0.00144
30 - 31	0.0269	<0.00132	<0.00132	<0.00132	<0.00132
45.5 - 46.5	0.00913	<0.0012	<0.0012	<0.0012	<0.0012

PSVE-6 (7/8/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	<0.00147	<0.00147	<0.00147	<0.00147	<0.00147
9 - 10	0.00174	<0.00129	<0.00129	<0.00129	<0.00129

PMW-22 (11/20/02)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
4.5 - 5	0.255	<0.00150	<0.00150	<0.00150	<0.00150
9.5 - 10	12.5	<0.359	<0.359	<0.359	<0.359
19.5 - 20	244	<1.640	<1.640	<1.640	<1.640
29.5 - 30	<0.300	<0.300	<0.300	<0.300	<0.300
44.5 - 45	0.00143	<0.00125	<0.00125	<0.00125	<0.00125



#### Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- Location With VOC Concentrations Exceeding Direct Contact Risk-Based Screening Level
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- x-x-x-x-x- Fence

#### Abbreviations:

- PCE = Tetrachloroethene
- 1,1,1-TCA = 1,1,1-trichloroethane
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-dichloroethene
- 1,1-DCE = 1,1-dichloroethene
- VOC = Volatile organic compound
- <0.004 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this compound or result not available.
- Dup = Duplicate or sequential sample

#### Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for VOCs.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 43 for analytical results of soil samples collected in shaded area that overlaps with Building L Area.

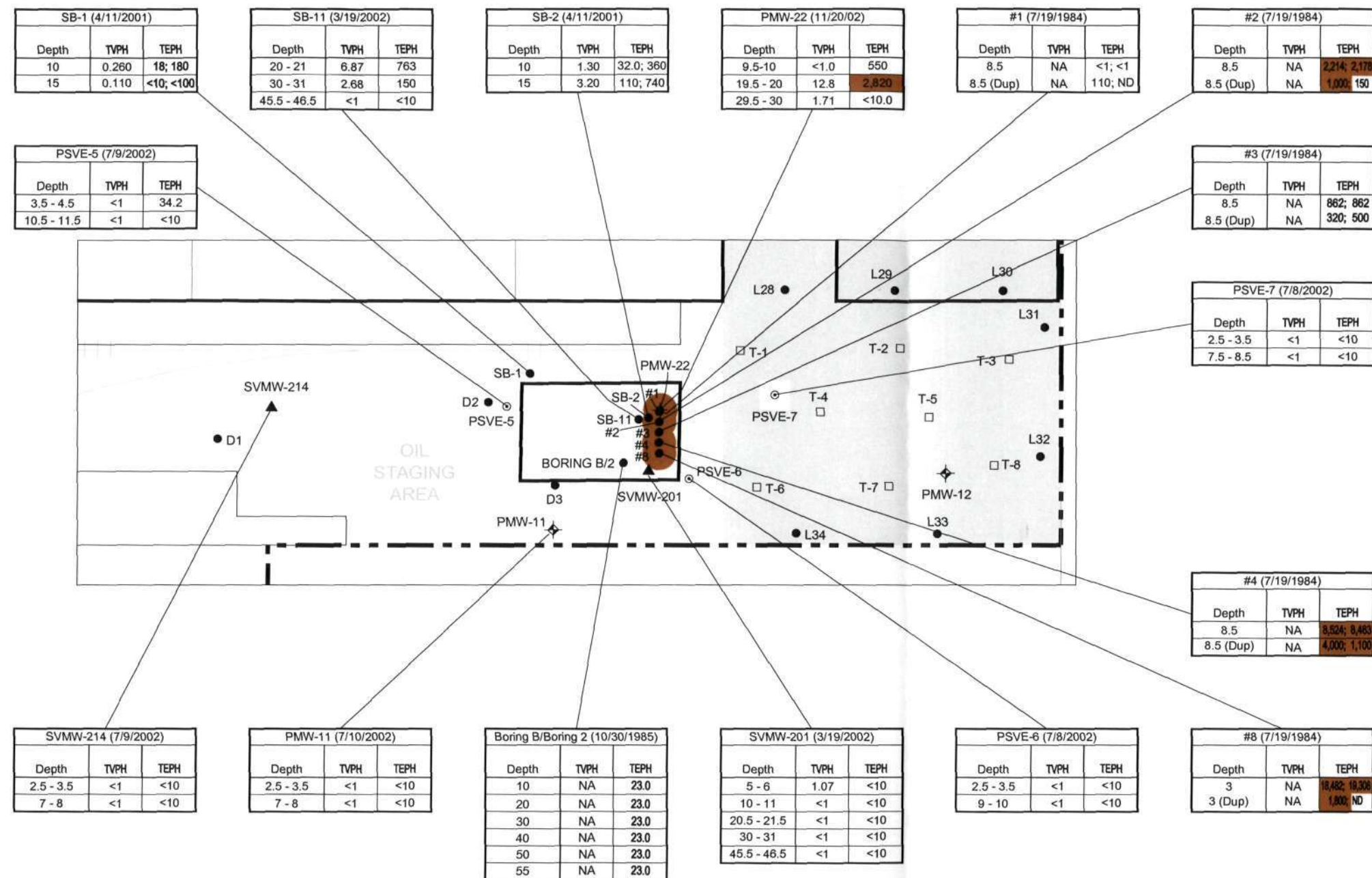
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Sampling Results for VOCs in Soil at Oil Staging Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 37

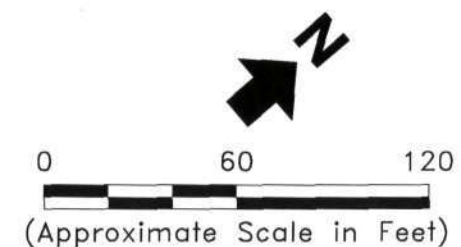




#### Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for petroleum hydrocarbons.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 44 for analytical results of soil samples collected in shaded area that overlaps with Building L Area.

6. For samples collected in 2001, the TVPH result indicates petroleum hydrocarbons in the C<sub>5</sub>-C<sub>10</sub> carbon chain length range. The TVPH may be the same as the VOCs detected in this area.
7. For samples collected in 2001, two TEPH results are listed. The first indicates petroleum hydrocarbons in the C<sub>10</sub>-C<sub>20</sub> carbon chain length range and the second indicates petroleum hydrocarbons in the C<sub>20</sub>-C<sub>30</sub> carbon chain length range. For samples collected in 1984, the values are for total recoverable petroleum hydrocarbons by EPA Method 418.1.
8. Soil described by samples #1, #2, #3, #4 and #8 may have been removed.



#### Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- Location With Total Extractable Petroleum Hydrocarbon Concentrations Exceeding Direct Contact Risk-Based Screening Level
- Approximate Property Boundary
- - - - - Out-of-Service Railroad Spur
- x - x - x - x - Fence

#### Abbreviations:

- TVPH = Total volatile petroleum hydrocarbons with carbon chain lengths between C<sub>6</sub> and C<sub>11</sub> (See Note 6)
- TEPH = Total extractable petroleum hydrocarbons with carbon chain lengths between C<sub>12</sub> and C<sub>36</sub> (See Note 7)
- <1 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.
- Dup = Duplicate or sequential sample

**Erler & Kalinowski, Inc.**

Petroleum Hydrocarbons in Soil at  
Oil Staging Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 38



D2 (6/5/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
8	14.1	ND	ND	ND	ND
18	11.6	ND	ND	ND	ND
18 (dup)	11.8	ND	ND	ND	ND
40	8.4	ND	ND	ND	ND

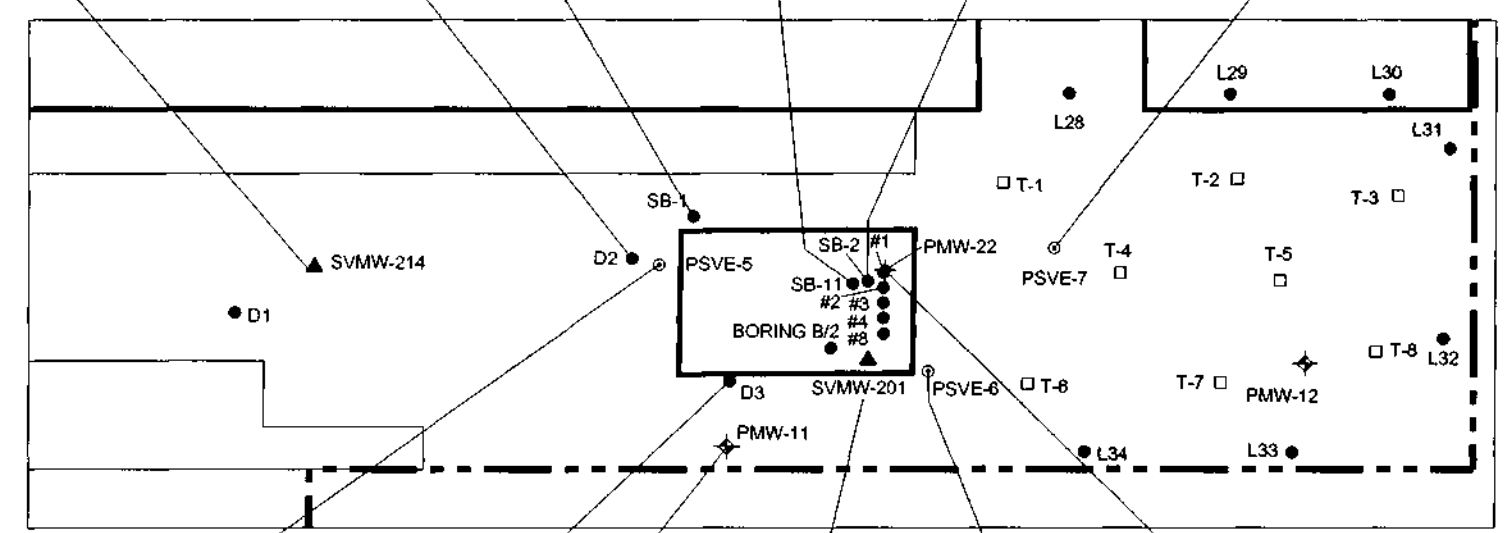
SB-1 (4/11/2001)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10	15.0	32.0	4.40	8.90	50.0
15	8.80	20.0	0.88	6.70	39.0

SB-11 (3/19/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
20 - 21	18.7	17.3	<5.00	6.34	31.6
30 - 31	10.4	14.1	<5.00	7.73	32.9

SB-2 (4/11/2001)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10	6.20	42.0	6.10	5.00	62.0
15	14.0	92.0	11.0	15.0	56.0

PSVE-7 (7/8/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	3.61	5.30	<2.50	<2.50	14.7
7.5 - 8.5	6.84	11.4	<2.50	6.48	15.8

SVMW-214 (7/9/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	7.27	230	44.0	11.7	194
7 - 8	5.99	17.6	3.94	4.54	28.3



# Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ✦ Groundwater Monitoring Well
- ✦ Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- - - - - Fence

# Abbreviations

- <1 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.

# Notes:

- All locations are approximate.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for metals.
- Sample depths are in feet below ground or floor surface.
- Refer to Figure 45 for analytical results of soil samples collected in shaded area that overlaps with Building L Area.
- No metal concentrations in samples shown are greater than direct contact risk-based screening levels.

**Erler & Kalinowski, Inc.**

Sampling Results for Metals in Soil at  
Oil Staging Area

PSVE-5 (7/9/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
3.5 - 4.5	9.49	22.7	3.72	5.91	27.5
10.5 - 11.5	2.94	8.33	<2.50	3.02	13.9

D3 (6/5/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
8	9.2	ND	ND	ND	ND
20	10.4	ND	ND	ND	ND
40	8.8	ND	ND	ND	ND

PMW-11 (7/10/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	4.75	7.48	<2.50	3.16	15.5
7 - 8	4.53	15.1	<2.50	3.96	19.0

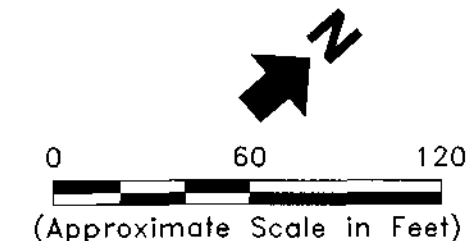
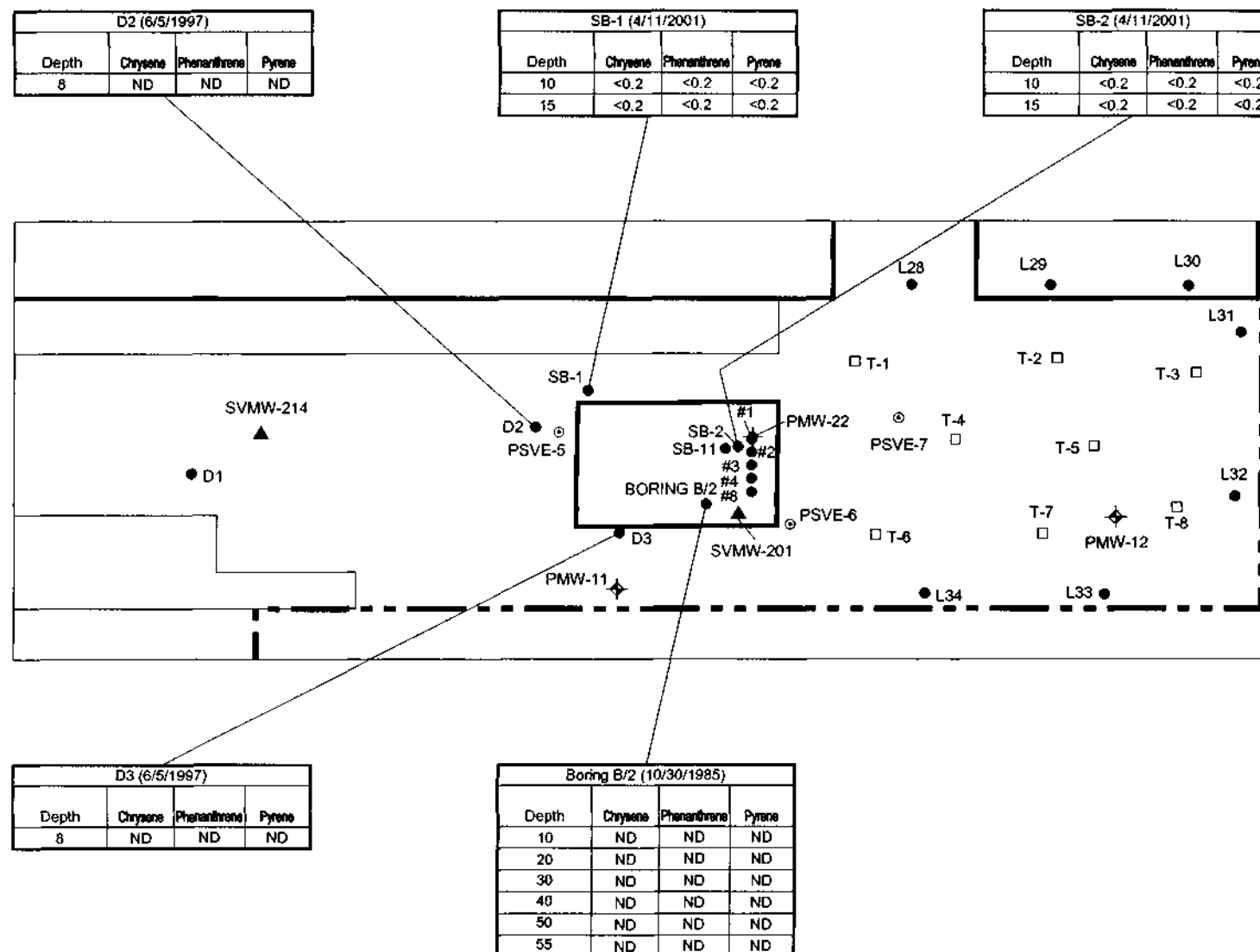
SVMW-201 (3/19/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
5 - 6	6.09	16.1	<5	<5	46.0
10 - 11	11.1	14.6	16.9	6.39	38.3
20.5 - 21.5	8.73	15.3	11.6	6.42	30.5
30 - 31	10.3	13.1	<5	5.26	25.4

PSVE-6 (7/8/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	3.05	6.54	<2.50	<2.50	16.0
9 - 10	8.3	7.77	<2.50	3.01	16.0

PMW-22 (11/20/02)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
4.5 - 5	5.07	453	71.4	8.98	358
9.5 - 10	8.04	69.0	16.3	5.58	87.1
19.5 - 20	9.89	11.0	<2.50	4.55	28.0

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 39





#### Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - - - Fence

#### Abbreviations:

- SVOC = Semi-volatile organic compound
- <0.2 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.

#### Notes:

- All locations are approximate.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for SVOCs.
- Sample depths are in feet below ground or floor surface.
- Refer to Figure 46 for analytical results of soil samples collected in shaded area that overlaps with Building L Area.
- No SVOC concentrations in samples shown are greater than direct contact risk-based screening levels.

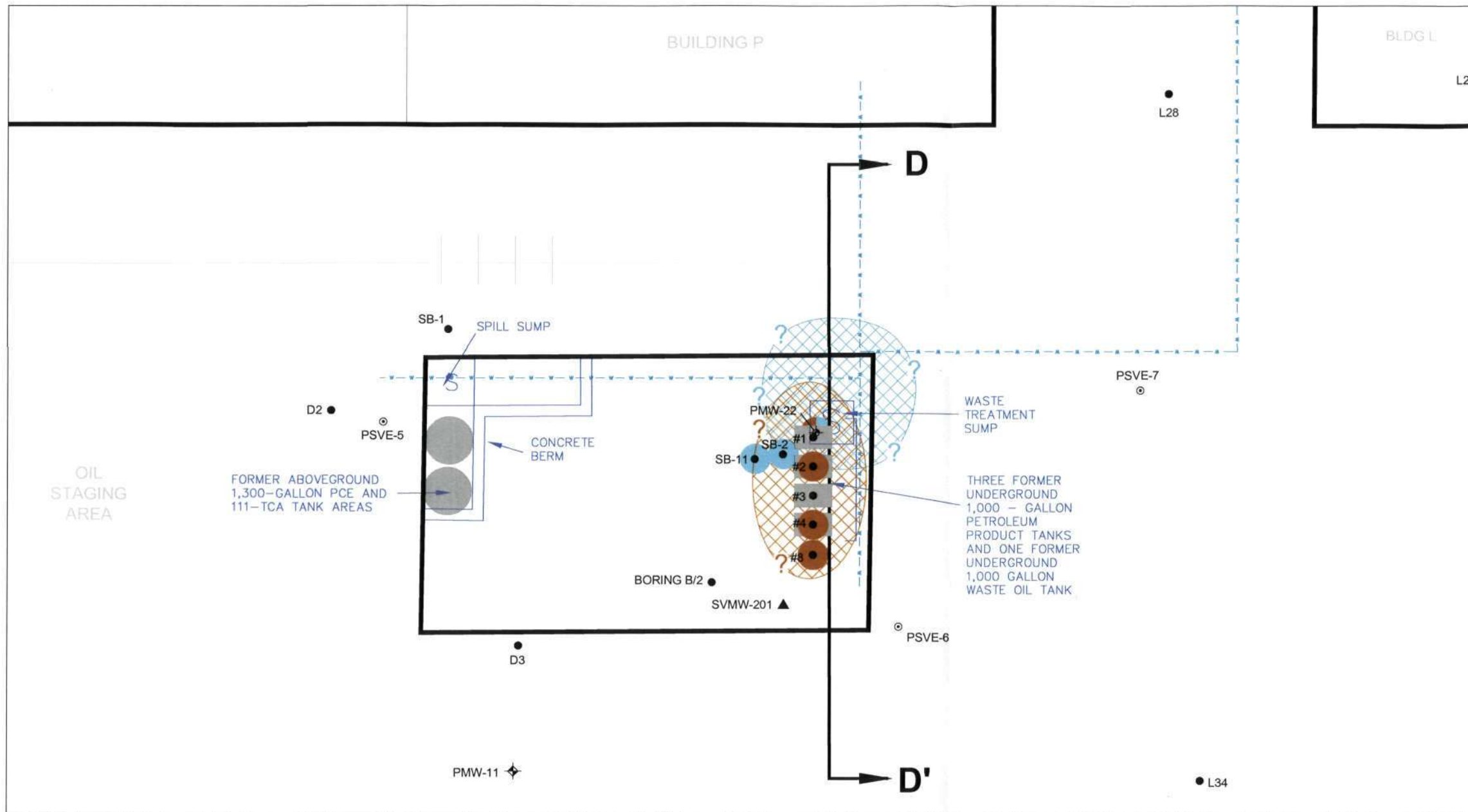
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Sampling Results for SVOCs in Soil at  
Oil Staging Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 40





N

0 60 120

(Approximate Scale in Feet)

**Legend:**

- Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- Former Above Ground or Underground Storage Tank or Process Unit
- Existing Interior Wall or Office
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - Former or Existing Trench
- - - Water Line
- D D' Cross-Section Location
- Location Where PCE is Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where PCE May Be Present in Soil Above Direct Contact Risk-Based Screening Level
- Location Where Total Extractable Petroleum Hydrocarbons are Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where Total Extractable Petroleum Hydrocarbons May Be Present in Soil Above Direct Contact Risk-Based Screening Level

**Abbreviations:**

PCE = Tetrachloroethene

VOC = Volatile organic compound

ft bgs = feet below ground surface

µg/L = micrograms per liter

**Notes:**

1. All locations are approximate. See Note 1, Figure 3.

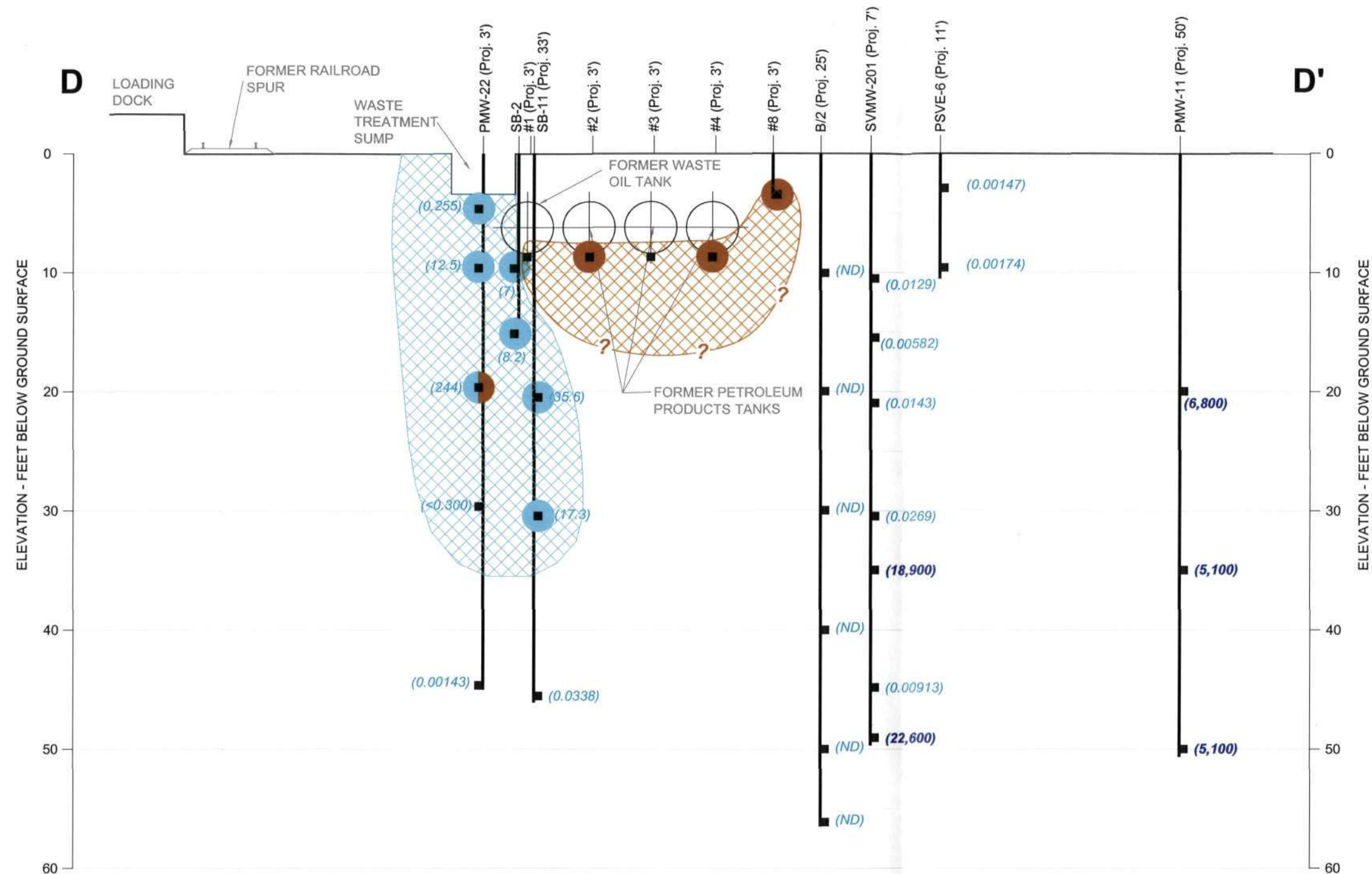
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Environmental Conditions at Oil Staging Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
**Figure 41**

(NOT PART OF PRICE PFISTER)





**CROSS-SECTION D-D'**

10 FEET  
10 FEET

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Cross-Section D-D'  
at Oil Staging Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 42



L10 (7/25/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.25	0.0103	<0.00148	<0.00148	<0.00148	<0.00148

L20 (7/24/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5	4.45	<0.399	<0.399	<0.399	<0.399

L25 (7/24/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.25	0.0194	<0.00132	<0.00132	<0.00132	<0.00132

SB-4 (4/11/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5 - 5.5	<0.004	<0.004	<0.004	<0.004	<0.004
10 - 10.5	<0.004	<0.004	<0.004	<0.004	<0.004

SB-3 (4/11/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5 - 5.5	<0.004	<0.004	<0.004	<0.004	<0.004
10 - 10.5	<0.004	<0.004	<0.004	<0.004	<0.004

L15 (7/24/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5	0.00543	<0.00126	<0.00126	<0.00126	<0.00126

SVMW-213 (7/16/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2 - 3	<0.00129	<0.00129	<0.00129	<0.00129	<0.00129
8.5 - 9.5	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135

L27 (7/24/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5	5.34	<0.416	0.419	<0.416	<0.416

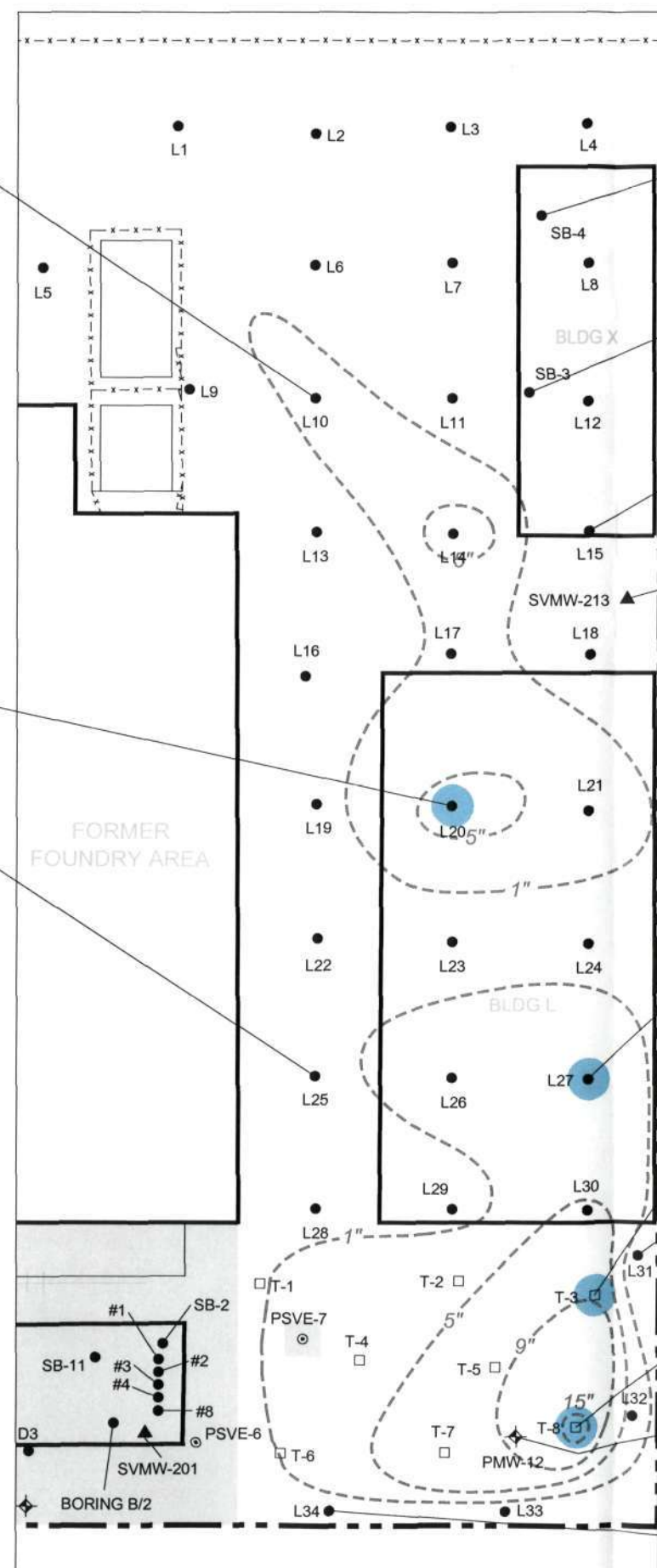
T-3 (3/19/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5 - 1	10.2	<0.320	1.61	<0.320	<0.320

L31 (7/24/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5	0.00404	<0.00148	<0.00148	<0.00148	<0.00148

T-8 (3/19/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5 - 1	179	<1.61	3.91	<1.61	<1.61

PMW-12 (6/24/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2 - 3	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
8.5 - 9.5	0.00176	<0.00134	<0.00134	<0.00134	<0.00134

L34 (7/25/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5	0.0782	<0.00118	<0.00118	<0.00118	<0.00118



Legend: (Approximate Scale in Feet)

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- Location With VOC Concentrations Exceeding Direct Contact Risk-Based Screening Level
- Approximate Thickness of Black Sand Observed Below Pavement (in Inches)
- Approximate Property Boundary
- - - - - Fence

#### Abbreviations:

- PCE = Tetrachloroethene
- 1,1,1-TCA = 1,1,1-trichloroethane
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-dichloroethene
- 1,1-DCE = 1,1-dichloroethene
- VOC = Volatile organic compound
- <0.399 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- Dup = Duplicate or sequential sample

#### Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for VOCs.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 37 for analytical results of soil samples collected in shaded area that overlaps with Building L Area.

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Sampling Results for VOCs in Soil at Building L Area

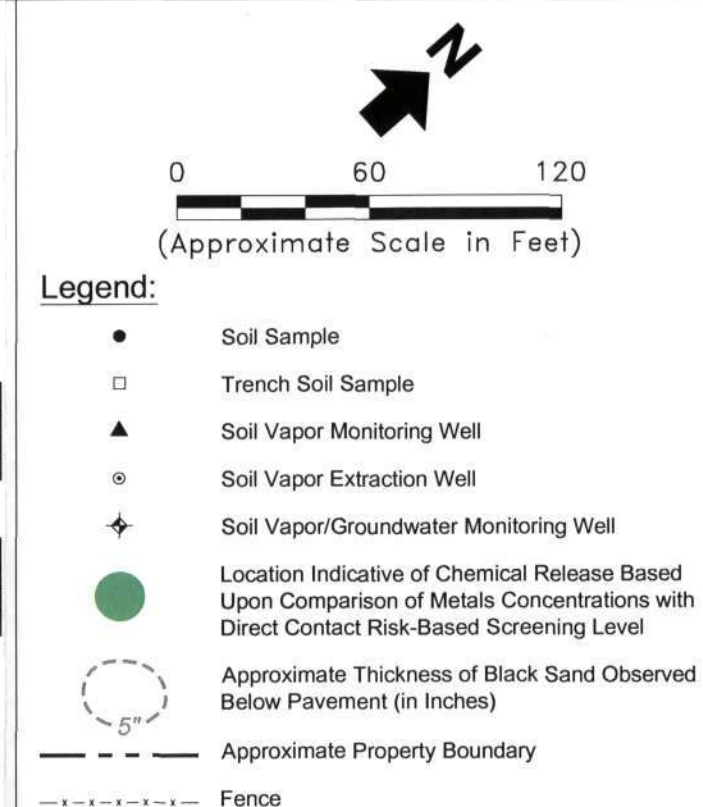
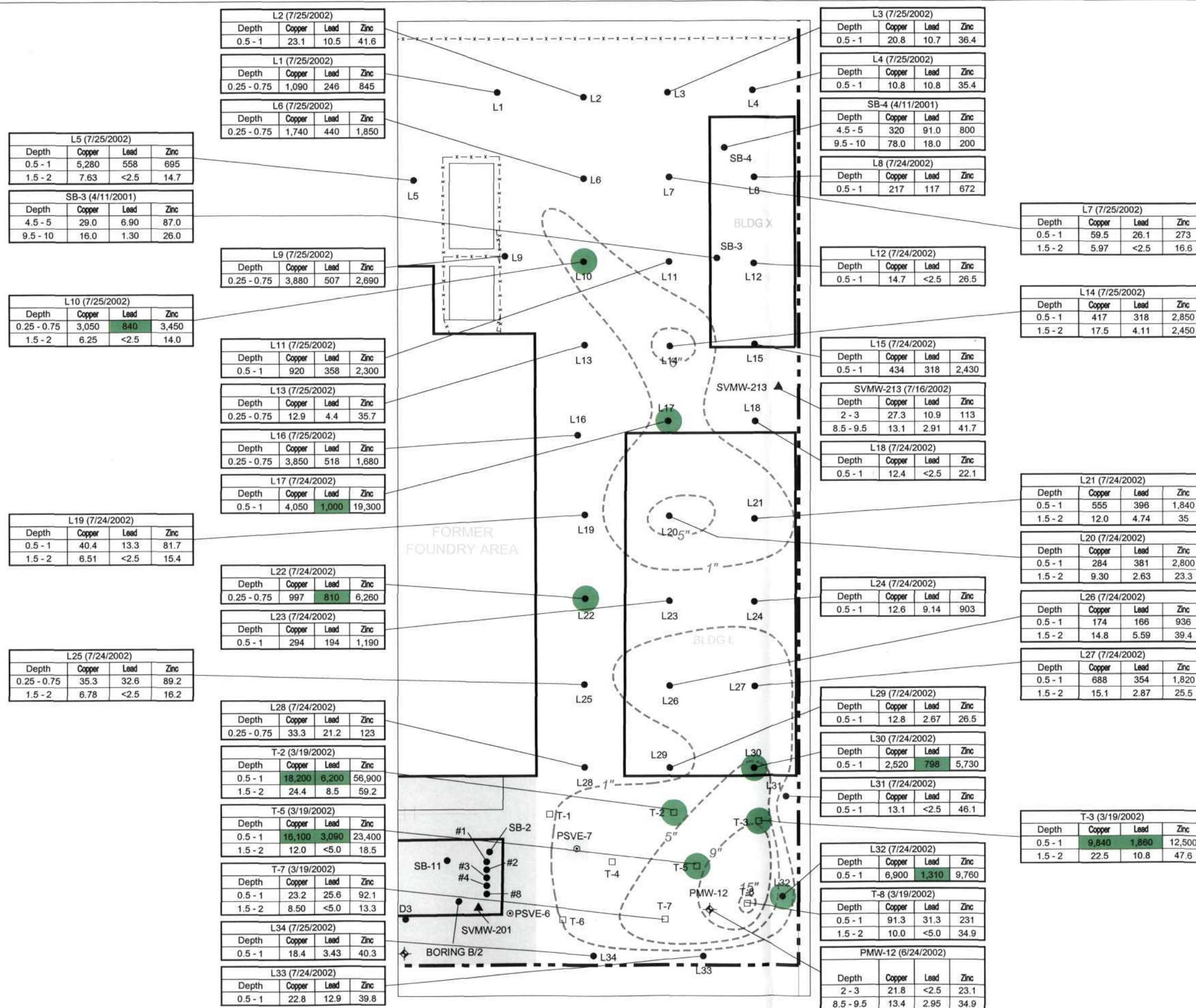
Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 43









## Abbreviations

<1	= Analyte not detected above analytical method reporting limit shown.
ND	= Analyte not detected above analytical method reporting limit. Reporting limit not known.
NA	= Sample not tested for this analyte or result not available

Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for metals.
4. Sample depths are in feet below ground or floor surface.
5. Refer to Figure 39 for analytical results of soil samples collected in shaded area that overlaps with the Oil Staging Area.

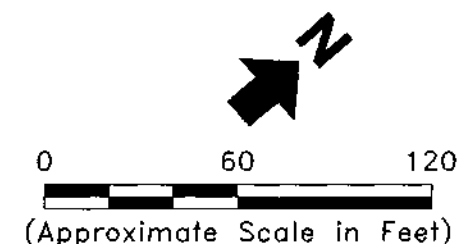
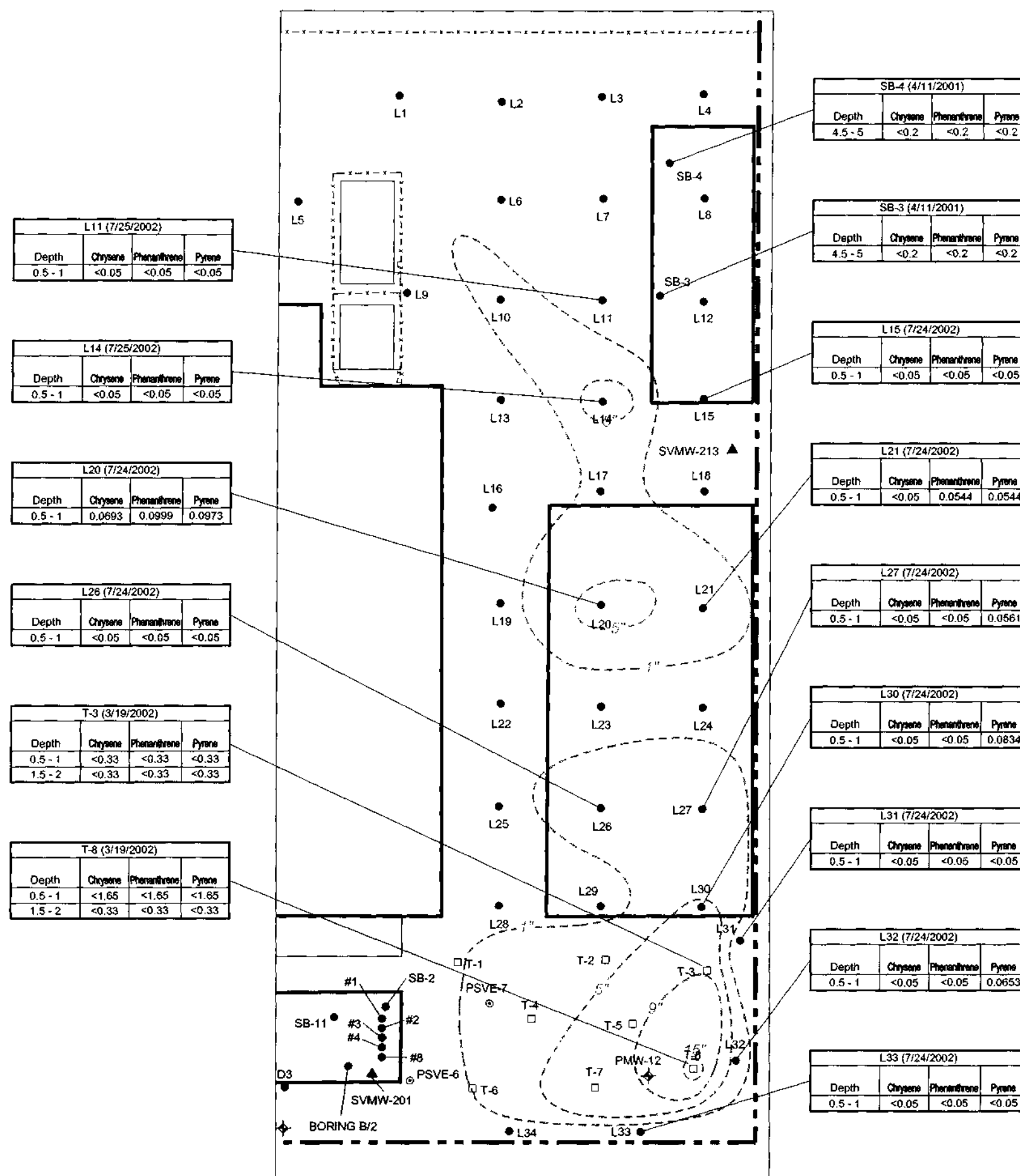
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### Sampling Results for Metals in Soil at Building L Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 45





#### Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- Approximate Thickness of Black Sand Observed Below Pavement (in Inches)
- Approximate Property Boundary
- - - - - Fence

#### Abbreviations:

- SVOC = Semi-volatile organic compound
- <0.05 = Analyte not detected above analytical method reporting limit shown.

#### Notes:

- All locations are approximate.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for SVOCs.
- Sample depths are in feet below ground or floor surface.
- Refer to Figure 40 for analytical results of soil samples collected in shaded area that overlaps with the Oil Staging Area.
- No SVOC concentrations in samples shown are greater than direct contact risk-based screening levels.

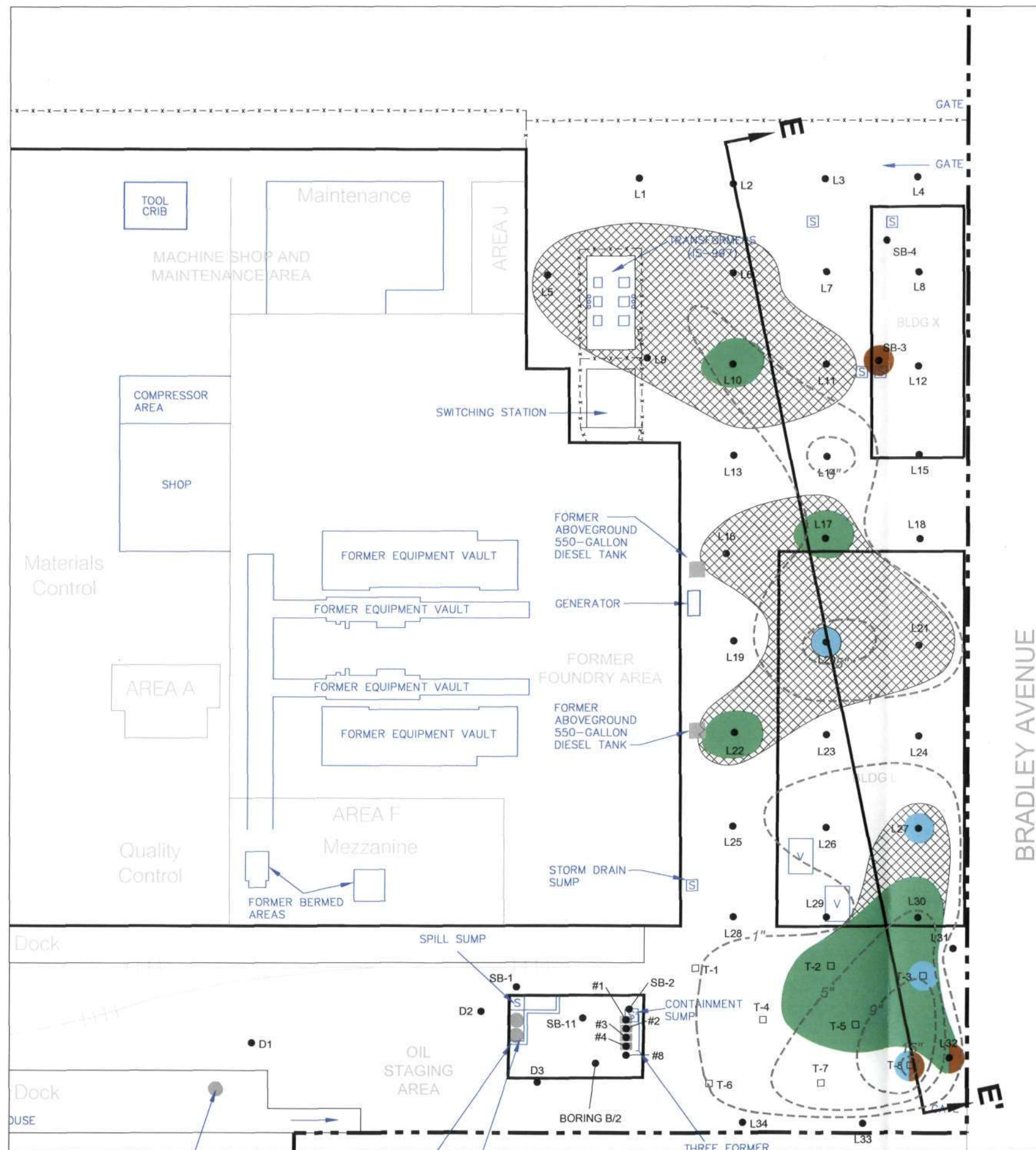
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Sampling Results for SVOCs in Soil at  
Building L Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 46





# Legend:

- Soil Sample
- Trench Soil Sample
- Former Aboveground or Underground Storage Tank or Process Unit
- Existing Interior Wall or Office
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- x - x - x - x - x - Fence
- - - - - Former or Existing Trench
- 5" D D' Approximate Thickness of Black Sand Observed Below Asphalt Pavement (in Inches)
- Cross-Section Location
- Location Where Tetrachloroethene ("PCE") is Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where Metals in Soil are Above Direct Contact Risk-Based Screening Levels and Possibly Criteria for Hazardous Waste
- Location Where Total Extractable Petroleum Hydrocarbons are Present in Soil Above Direct Contact Risk-Based Screening Level
- Generalized Area Where Metals in Soil may be Present Above Direct Contact Risk-Based Screening Levels and Possibly Criteria for Hazardous Waste

## Notes:

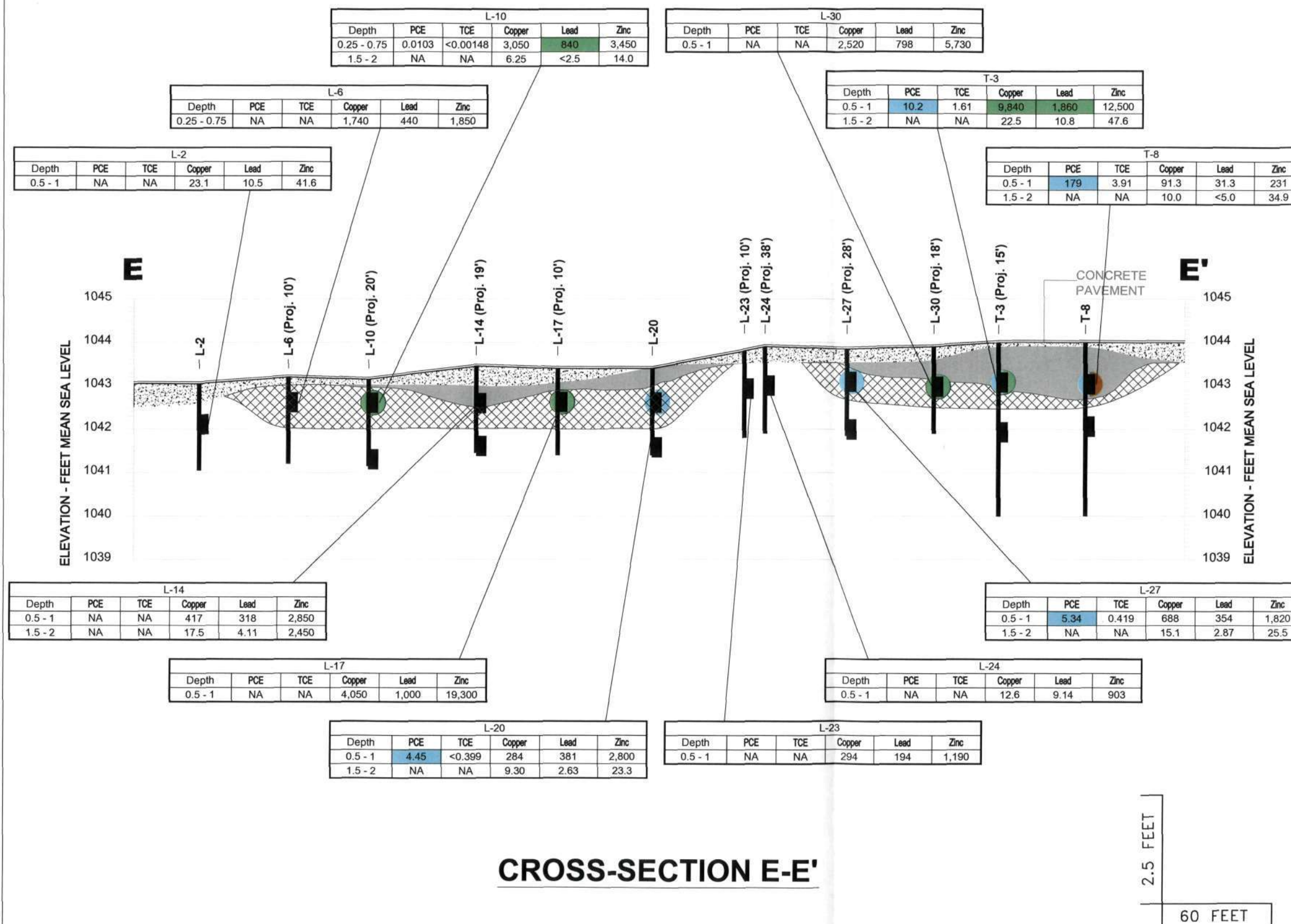
1. All locations are approximate. See Note 1, Figure 3.

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Environmental Conditions at  
Building L Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 47





**Erler & Kalinowski, Inc.**

Cross-Section E-E'  
at Building L Area

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 48



SVMW-203 (7/16/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2 - 3	0.0018	<0.00145	<0.00145	<0.00145	<0.00145
7 - 8	0.00353	<0.00145	0.00146	<0.00145	<0.00145

1 through 4 (6/21/1989)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2	ND	ND	ND	ND	ND

SVMW-204 (7/17/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124
7 - 8	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013

A1 (6/3/1997)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
0.5	ND	ND	ND	ND	ND
3	ND	ND	ND	ND	ND
10	ND	ND	ND	ND	ND
15	ND	ND	ND	ND	ND
40	ND	ND	ND	ND	ND

SB-10 (4/10/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
10	0.076	<0.004	<0.004	<0.004	<0.004
20	<0.004	<0.004	<0.004	<0.004	<0.004

B1 (6/5/1997)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
8	ND	ND	ND	ND	ND
8 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002
20	ND	ND	ND	ND	ND
20 (Dup)	<0.002	<0.002	<0.002	<0.002	<0.002
40	ND	ND	ND	ND	ND

SVMW-206 (7/16/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	<0.00135	<0.00135	<0.00135	<0.00135	<0.00135
7 - 8	<0.00148	<0.00148	<0.00148	<0.00148	<0.00148

SB-5 (4/11/2001)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
5	0.0095	<0.004	<0.004	<0.004	<0.004
10	0.0048	<0.004	<0.004	<0.004	<0.004

PMW-9 (7/10/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2 - 3	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126
7 - 8	0.00585	<0.00128	<0.00128	<0.00128	<0.00128

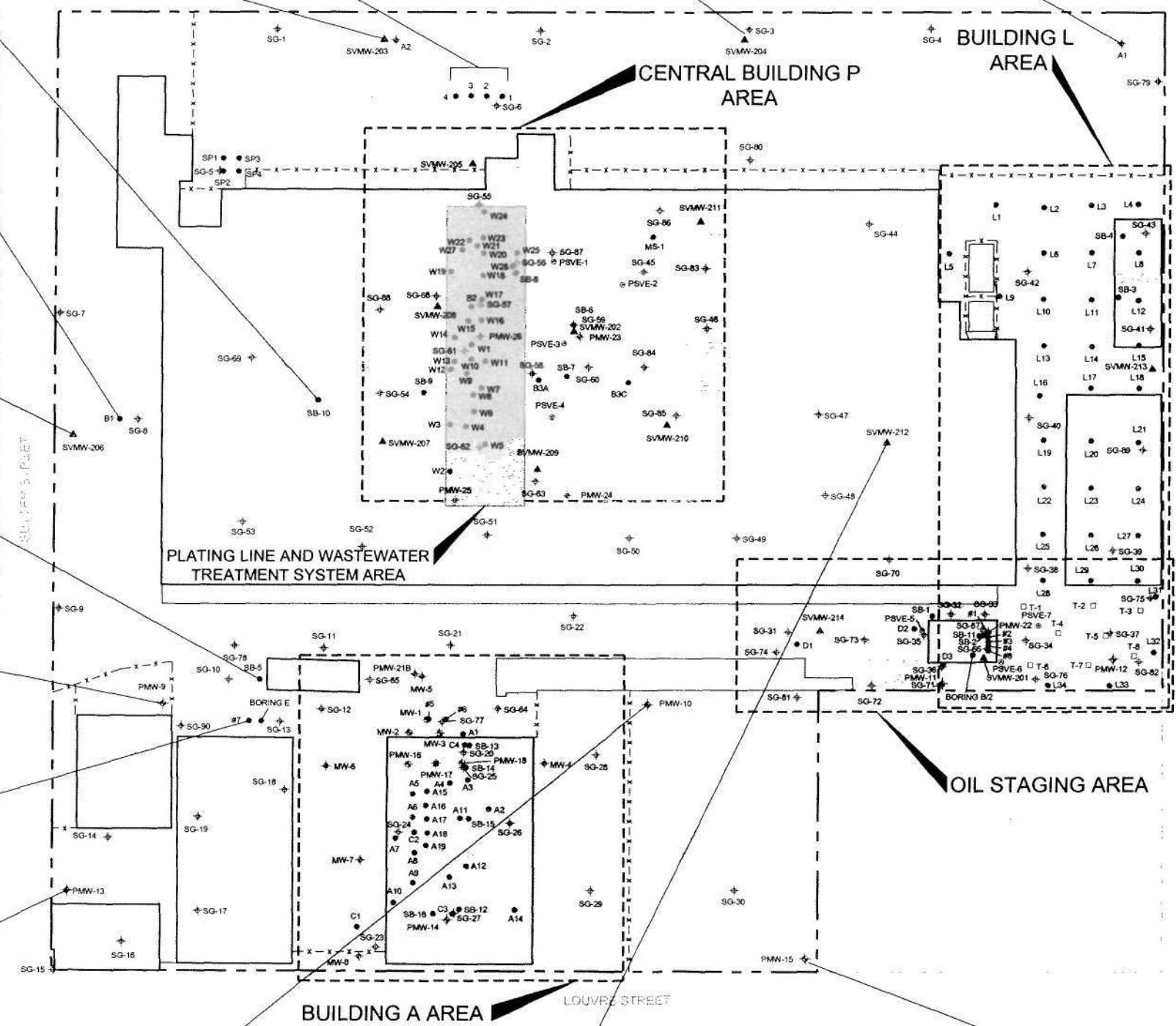
#7 (7/19/1984)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
NA	ND	ND	ND	ND	ND

PMW-13 (7/11/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2 - 3	0.021	<0.00132	<0.00132	<0.00132	<0.00132
7.5 - 8.5	<0.00155	<0.00155	<0.00155	<0.00155	<0.00155

PMW-10 (7/15/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2.5 - 3.5	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
7 - 8	<0.00139	<0.00139	<0.00139	<0.00139	<0.00139

SVMW-212 (7/11/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
1 - 2	0.00169	<0.00143	<0.00143	<0.00143	<0.00143
7.5 - 8.5	0.00751	<0.00133	<0.00133	<0.00133	<0.00133

PMW-15 (7/15/2002)					
Depth	PCE	1,1,1-TCA	TCE	cis-1,2-DCE	1,1-DCE
2 - 3	<0.00163	<0.00163	<0.00163	<0.00163	<0.00163
7 - 8	<0.00132	<0.00132	<0.00132	<0.00132	<0.00132



## Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- - - - - Out-of-Service Railroad Spur
- - - - - Fence

## Abbreviations:

- PCE = Tetrachloroethene
- 1,1,1-TCA = 1,1,1-trichloroethane
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-dichloroethene
- 1,1-DCE = 1,1-dichloroethene
- VOC = Volatile organic compound
- <0.004 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this compound or result not available.
- Dup = Duplicate or sequential sample

## Notes:

1. All locations are approximate.
2. Analytical results are in milligrams per kilogram.
3. Samples outside shaded area with no data posted were not analyzed for VOCs.
4. Sample depths are in feet below ground or floor surface.
5. No VOC concentrations in samples shown are greater than direct contact risk-based screening levels.

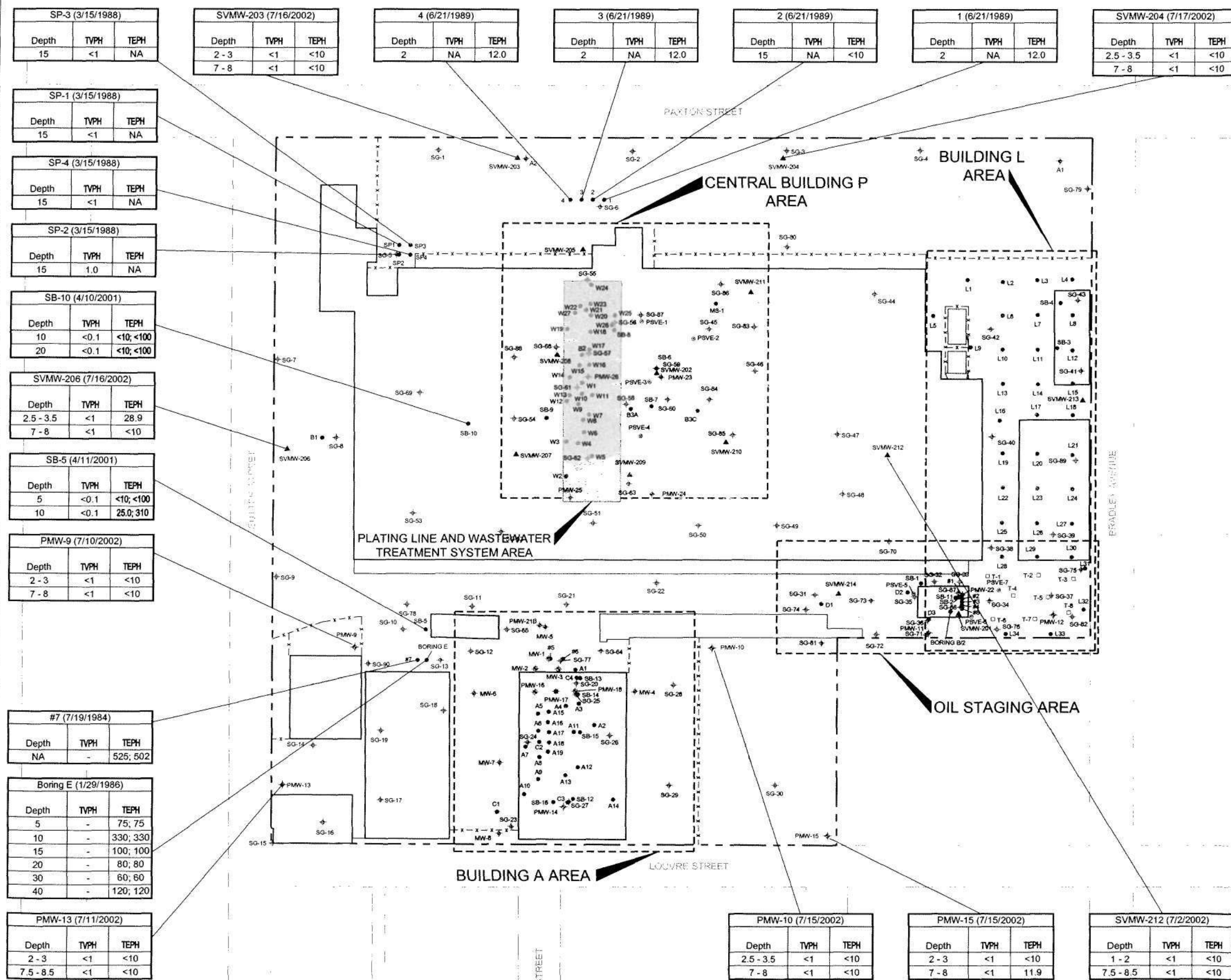
**Erler & Kalinowski, Inc.**

Sampling Results for VOCs in Soil at  
Other Site Locations

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 49





- 
- 
- Legend:** (Approximate Scale in Feet)
- Soil Sample
  - Trench Soil Sample
  - ▲ Soil Vapor Monitoring Well
  - ⊙ Soil Vapor Extraction Well
  - ⊕ Groundwater Monitoring Well
  - ⊕ Soil Vapor/Groundwater Monitoring Well
  - Approximate Property Boundary
  - - - Out-of-Service Railroad Spur
  - - - - - Fence
- Abbreviations:**
- TVPH = Total volatile petroleum hydrocarbons with carbon chain lengths between C<sub>6</sub> and C<sub>11</sub> (See Note 5)
- TEPH = Total extractable petroleum hydrocarbons with carbon chain lengths between C<sub>12</sub> and C<sub>36</sub> (See Note 6)
- <1 = Analyte not detected above analytical method reporting limit shown.
- NA = Sample not tested for this analyte or result not available.
- Dup = Duplicate or sequential sample
- Notes:**
- All locations are approximate.
  - Analytical results are in milligrams per kilogram.
  - Samples outside shaded area with no data posted were not analyzed for petroleum hydrocarbons.
  - Sample depths are in feet below ground or floor surface.
  - For samples collected in 2001, the TVPH result indicates petroleum hydrocarbons in the C<sub>5</sub>-C<sub>10</sub> carbon chain length range.
  - For samples collected in 2001, two TEPH results are listed. The first indicates petroleum hydrocarbons in the C<sub>10</sub>-C<sub>20</sub> carbon chain length range and the second indicates petroleum hydrocarbons in the C<sub>20</sub>-C<sub>30</sub> carbon chain length range.
  - No petroleum hydrocarbon concentrations in samples shown are greater than direct contact risk-based screening levels.

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Petroleum Hydrocarbons in Soil at Other Site Locations

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 50



SVMW-212 (7/2/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
1 - 2	6.98	3.99	<2.5	4.35	17.9
7.5 - 8.5	6.29	3.61	3.3	3.66	30.4

SVMW-203 (7/16/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2 - 3	7.71	6.96	<2.5	3.47	16
7 - 8	7.04	13	3.94	4.66	29.6

SVMW-204 (7/17/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	7.66	10	16.6	5.66	28.1
7 - 8	7.65	10.6	18.2	6.03	32.4

A1 (6/3/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
0.5	9.4	16	5.5	7.1	48.4
3	9.0	25.5	0.83	5.7	32.4
10	7.3	46.6	3.4	9.1	43.3
15	12.9	25.9	1.0	7.7	45
40	8.9	28.4	0.83	6.6	32.7

SB-10 (4/10/2001)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
10	9.6	13	1.5	5.0	30
20	11	1.8	<0.5	7.1	40

B1 (6/5/1997)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
8	12.7	ND	1.0	ND	ND
20	4.2	ND	1.5	ND	ND
20	4.9	ND	1.0	ND	ND
40	8.8	ND	0.76	ND	ND

SVMW-206 (7/16/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	9.94	56.7	12.7	6.67	222
7 - 8	3.77	6.56	<2.5	<2.5	16

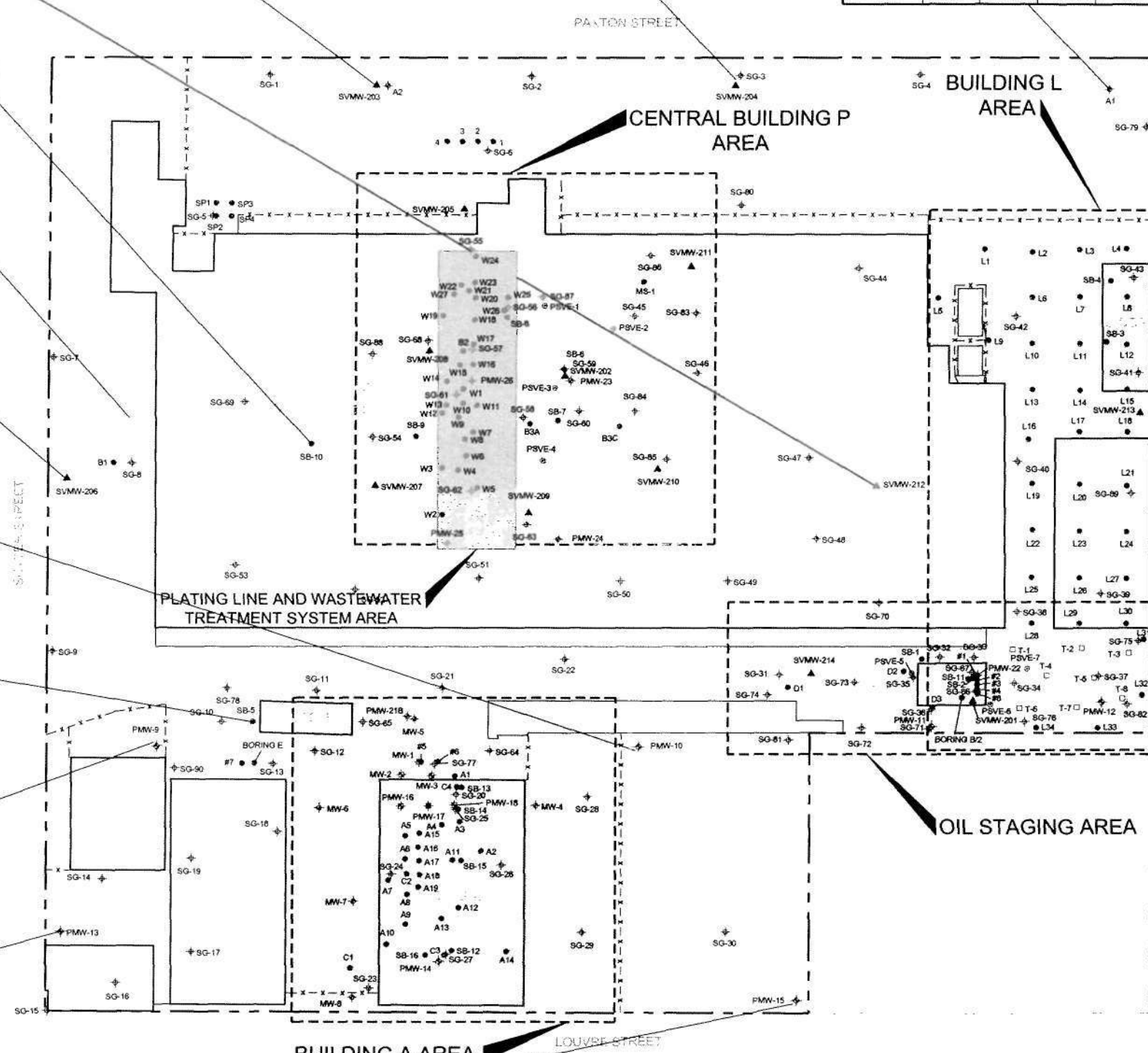
PMW-10 (7/15/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2.5 - 3.5	2.96	5.82	<2.5	2.51	13.1
7 - 8	5.41	12.5	12.6	3.96	29.4

SB-5 (4/11/2001)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
4.5 - 5	5.8	11	0.69	3.8	25
10	10	330	22	8.5	300

PMW-9 (7/10/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2 - 3	3.28	9.16	<2.50	<2.5	22
7 - 8	5.87	11.9	<2.50	4.06	49.8

PMW-13 (7/11/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2 - 3	5.73	7.8	3.04	4.38	18.7
7.5 - 8.5	3.13	5.93	<2.5	<2.5	15.2

PMW-15 (7/15/2002)					
Depth	Total Chromium	Copper	Lead	Nickel	Zinc
2 - 3	5.94	7.32	<2.5	2.74	19.1
7 - 8	5.7	10.8	8.34	4.93	35.7



# Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - Fence

# Abbreviations

- <2.50 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.
- NA = Sample not tested for this analyte or result not available.

# Notes:

- All locations are approximate.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for metals.
- Sample depths are in feet below ground or floor surface.
- No metal concentrations in samples shown are greater than direct contact risk-based screening levels.

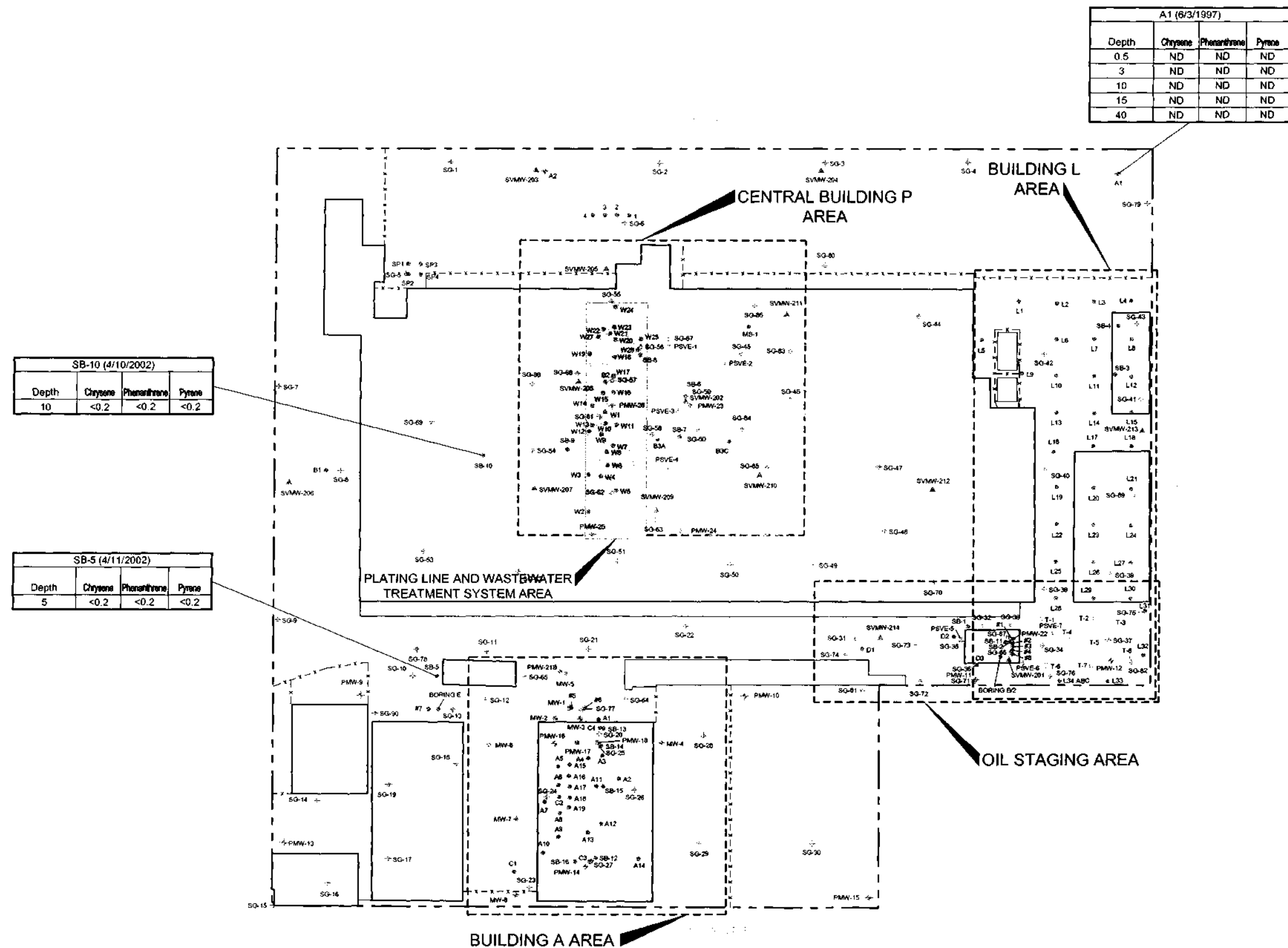
**Erler & Kalinowski, Inc.**

Sampling Results for Metals in Soil at  
Other Site Locations

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 51





#### Legend:

- Soil Sample
- Trench Soil Sample
- ▲ Soil Vapor Monitoring Well
- ⊙ Soil Vapor Extraction Well
- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- - - - - Fence

#### Abbreviations:

- SVOC = Semi-volatile organic compound
- <0.2 = Analyte not detected above analytical method reporting limit shown.
- ND = Analyte not detected above analytical method reporting limit. Reporting limit not known.

#### Notes:

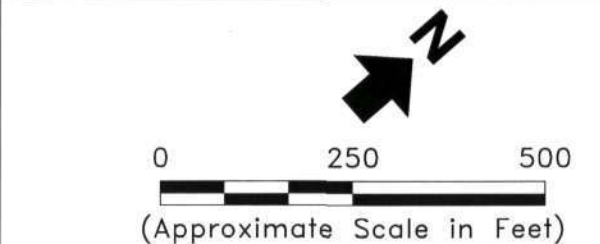
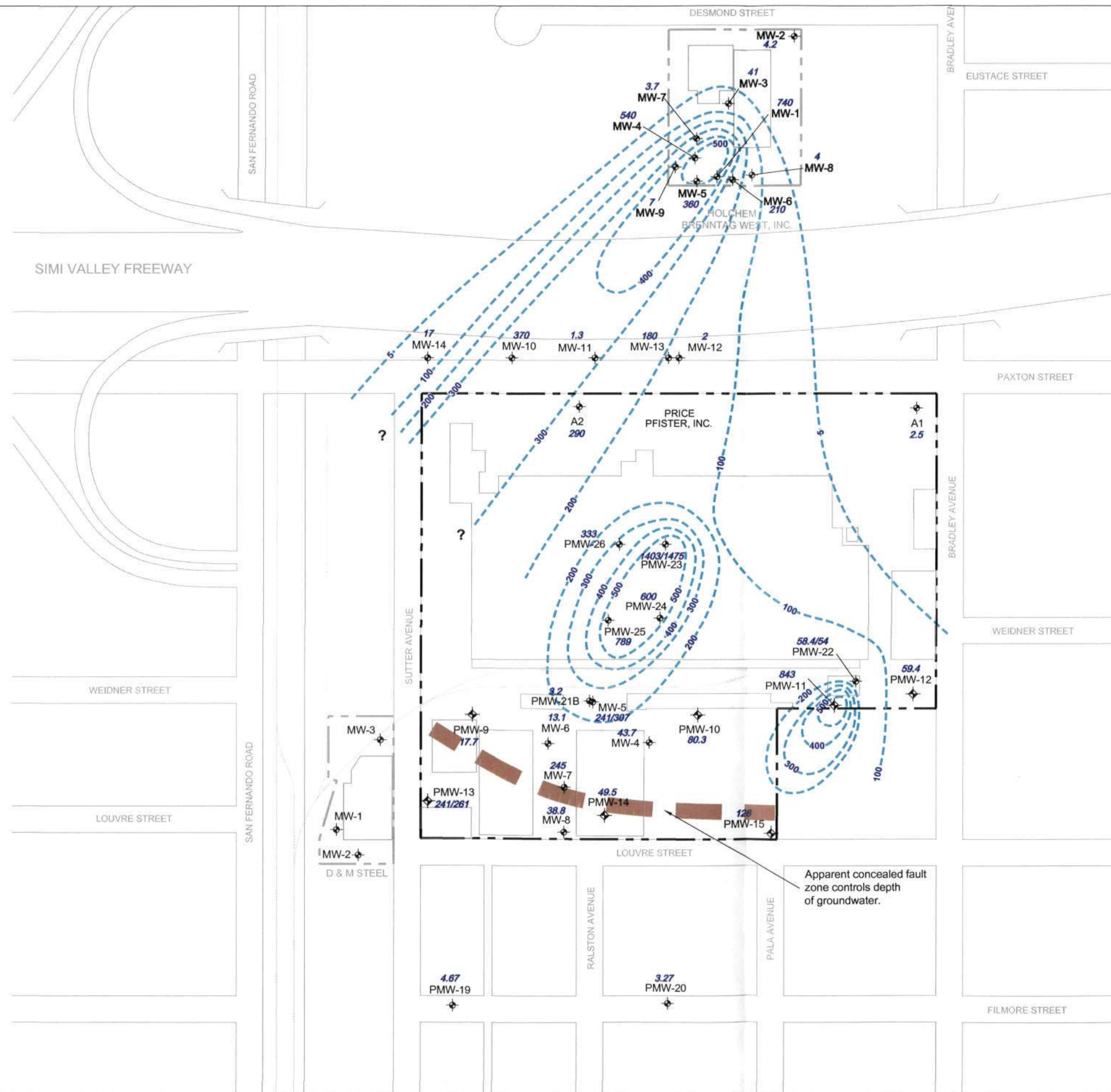
- All locations are approximate.
- Analytical results are in milligrams per kilogram.
- Samples outside shaded area with no data posted were not analyzed for SVOCs.
- Sample depths are in feet below ground or floor surface.
- No SVOC concentrations in samples shown are greater than direct contact risk-based screening levels.

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Sampling Results for SVOCs in Soil at  
Other Site Locations

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 52





- Legend:**
- ◆ Groundwater Monitoring Well
  - ◆ Soil Vapor/Groundwater Monitoring Well
  - - - Approximate Property Boundary
  - - - Out-of-Service Railroad Spur
  - 59.4 PCE Concentration (µg/L)
  - - - 5 - Inferred Isoconcentration Contour (µg/L)

- Abbreviations:**
- PCE = Tetrachloroethene
  - µg/L = micrograms per liter
  - MCL = Maximum Contaminant Level for drinking water

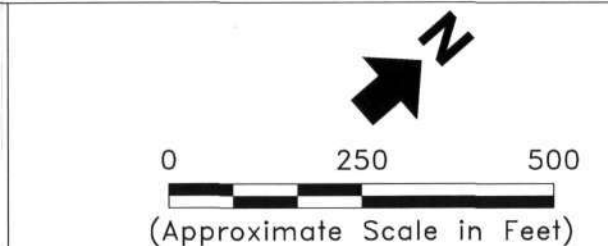
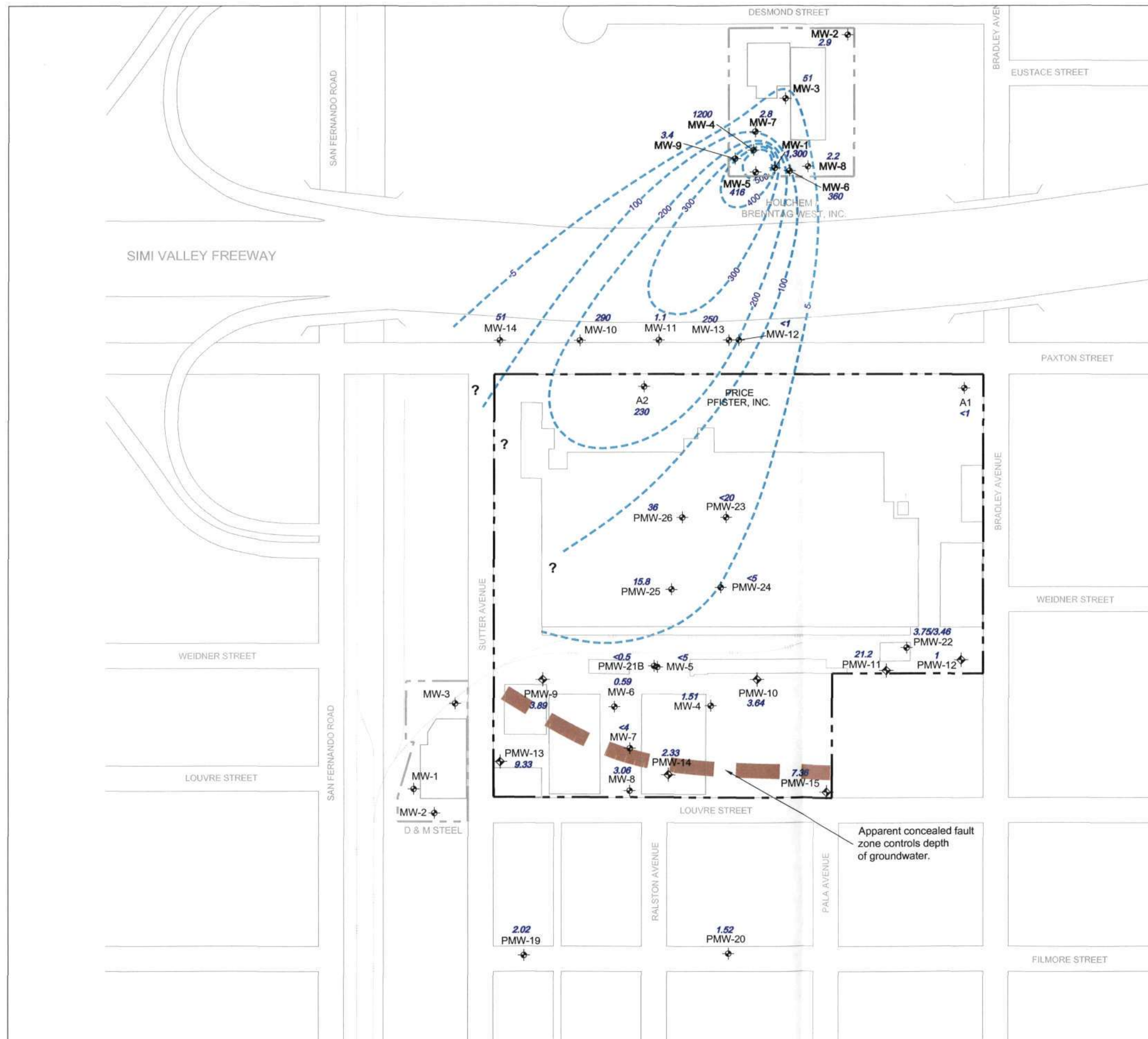
- Notes:**
1. All locations are approximate.
  2. The MCL for PCE is 5 µg/L.
  3. The PCE concentration data shown are from three different sampling events in 2002. Holchem data are from 13-15 August 2002 and Price Pfister data are from 7-8 November 2002 or 5-6 December 2002.
  4. The well screens for Price Pfister well PMW-21B and Holchem/Brenntag West wells MW-1, MW-7, MW-8, MW-9, MW-11, and MW-12 are deep wells only screened below the groundwater table. Data from these wells were not used to determine concentration contours.

## Erler & Kalinowski, Inc.

### Inferred Distribution of PCE in Groundwater

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 53





#### Legend:

- ◆ Groundwater Monitoring Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- Out-of-Service Railroad Spur
- 36 TCE Concentration (µg/L)
- - - 5 Inferred Isoconcentration Contour (µg/L)

#### Abbreviations:

- TCE = Trichloroethene
- µg/L = micrograms per liter
- MCL = Maximum Contaminant Level for drinking water

#### Notes:

1. All locations are approximate.
2. The MCL for TCE is 5 µg/L.
3. The TCE concentration data shown are from three different sampling events in 2002. Holchem data are from 13-15 August 2002 and Price Pfister data are from 7-8 November 2002 or 5-6 December 2002.
4. The well screens for Price Pfister well PMW-21B and Holchem/Brenntag West wells MW-1, MW-7, MW-8, MW-9, MW-11, and MW-12 are deep wells only screened below the groundwater table. Data from these wells were not used to determine concentration contours.

**Erler & Kalinowski, Inc.**

Inferred Distribution of  
TCE in Groundwater

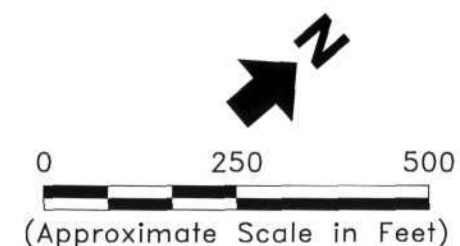
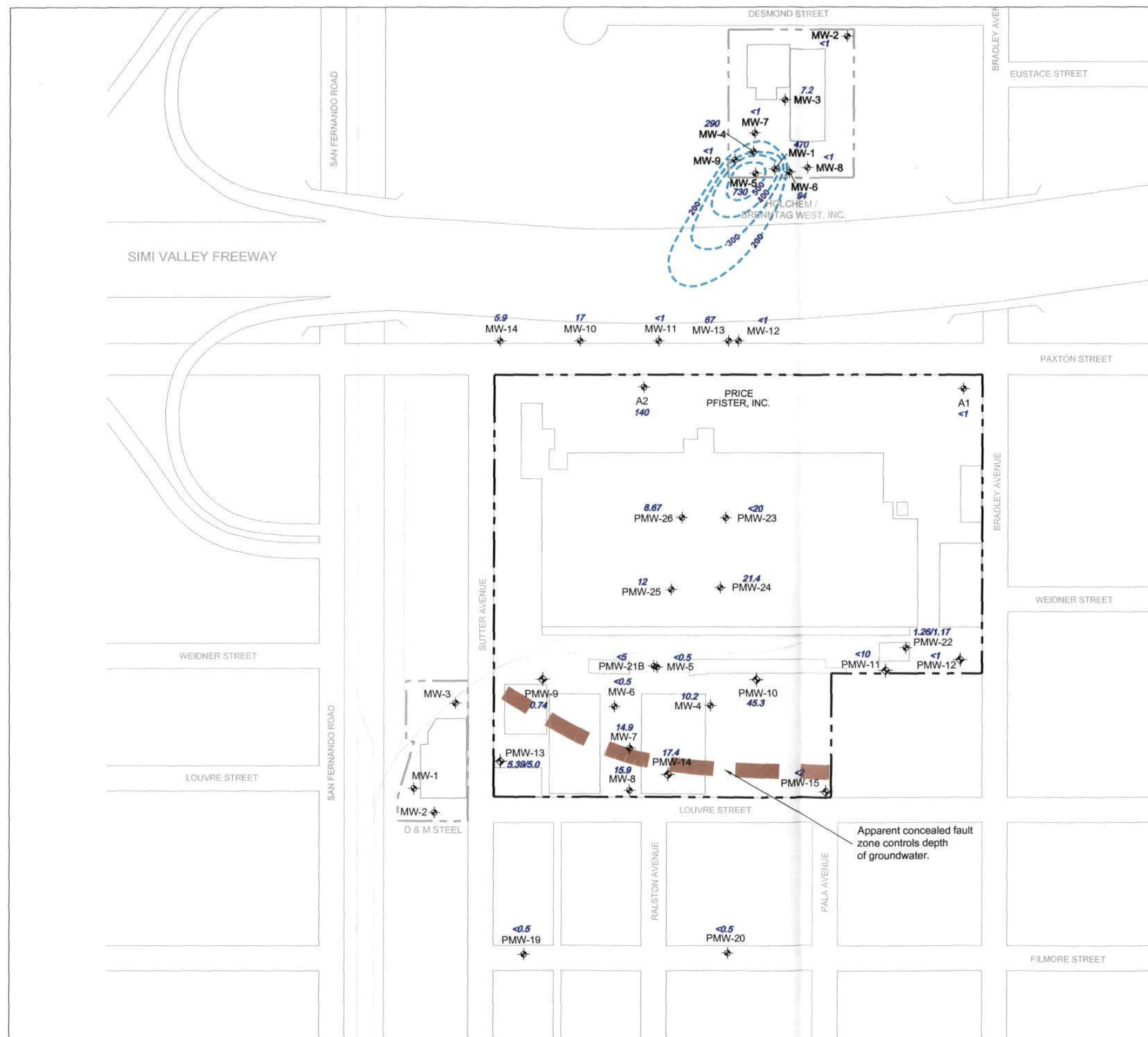
Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 54









#### Legend:

- ⊕ Groundwater Monitoring Well
- ⊕ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- ||| Out-of-Service Railroad Spur
- 140 1,1,1-TCA Concentration (µg/L)
- 200 Inferred Isoconcentration Contour (µg/L)

#### Abbreviations:

- 1,1,1-TCA = 1,1,1-trichloroethane
- µg/L = micrograms per liter
- MCL = Maximum Contaminant Level for drinking water

#### Notes:

1. All locations are approximate.
2. The MCL for 1,1,1-TCA is 200 µg/L.
3. The 1,1,1-TCA concentration data shown are from three different sampling events in 2002. Holchem data are from 13-15 August 2002 and Price Pfister data are from 7-8 November 2002 or 5-6 December 2002.
4. The well screens for Price Pfister well PMW-21B and Holchem/Brenntag West wells MW-1, MW-7, MW-8, MW-9, MW-11, and MW-12 are deep wells only screened below the groundwater table. Data from these wells were not used to determine concentration contours.

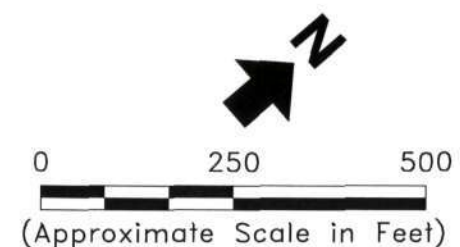
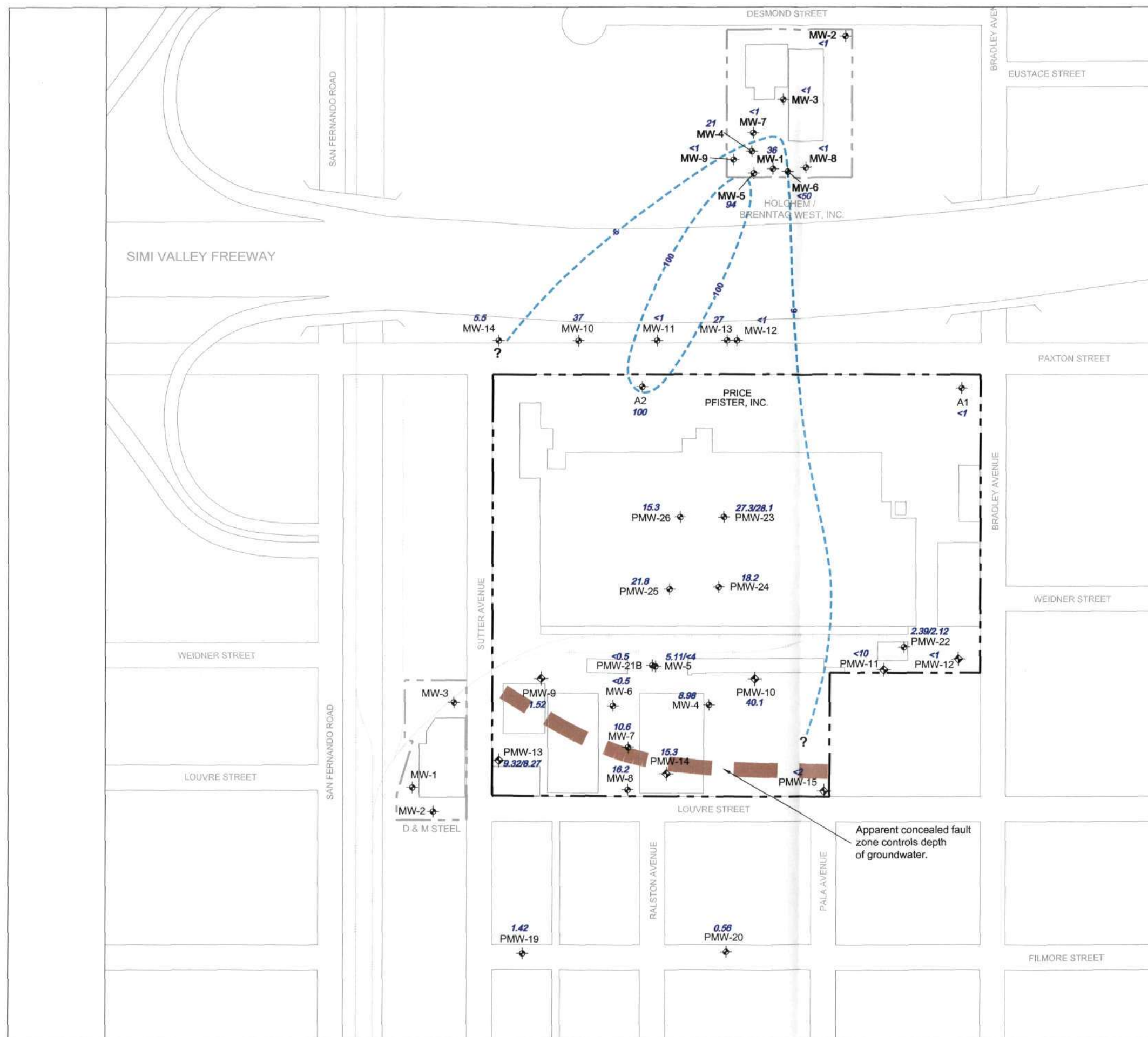
**Erler &  
Kalinowski, Inc.**

Inferred Distribution of  
1,1,1-TCA in Groundwater

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 56





#### Legend:

- ◆ Groundwater Monitoring Well
- ◆ Soil Vapor/Groundwater Monitoring Well
- - - Approximate Property Boundary
- - - Out-of-Service Railroad Spur
- 1.52 1,1-DCE Concentration (µg/L)
- 100 Inferred Isoconcentration Contour (µg/L)

#### Abbreviations:

- 1,1-DCE = 1,1-dichloroethene
- µg/L = micrograms per liter
- MCL = Maximum Contaminant Level for drinking water

#### Notes:

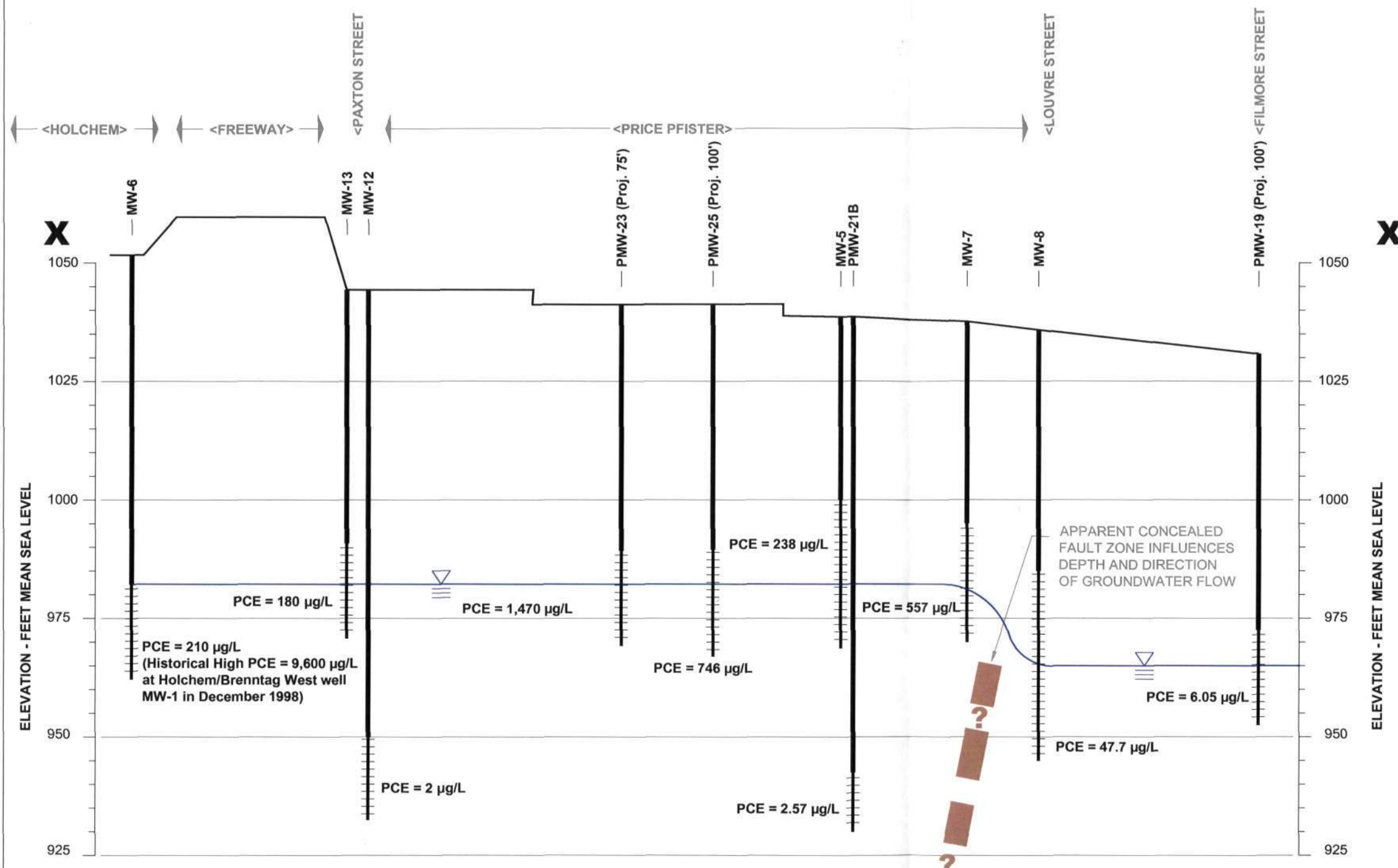
1. All locations are approximate.
2. The MCL for 1,1-DCE is 6 µg/L.
3. The 1,1-DCE concentration data shown are from three different sampling events in 2002. Holchem data are from 13-15 August 2002 and Price Pfister data are from 7-8 November 2002 or 5-6 December 2002.
4. The well screens for Price Pfister well PMW-21B and Holchem/Brenntag West wells MW-1, MW-7, MW-8, MW-9, MW-11, and MW-12 are deep wells only screened below the groundwater table. Data from these wells were not used to determine concentration contours.

**Erler &  
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Inferred Distribution of  
1,1-DCE in Groundwater

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
Figure 57





**CROSS-SECTION X-X'**

25 FEET  
200 FEET

**Legend:**

Well Screen Interval

**Abbreviations:**

PCE = Tetrachloroethene  
µg/L = micrograms per liter

**Notes:**

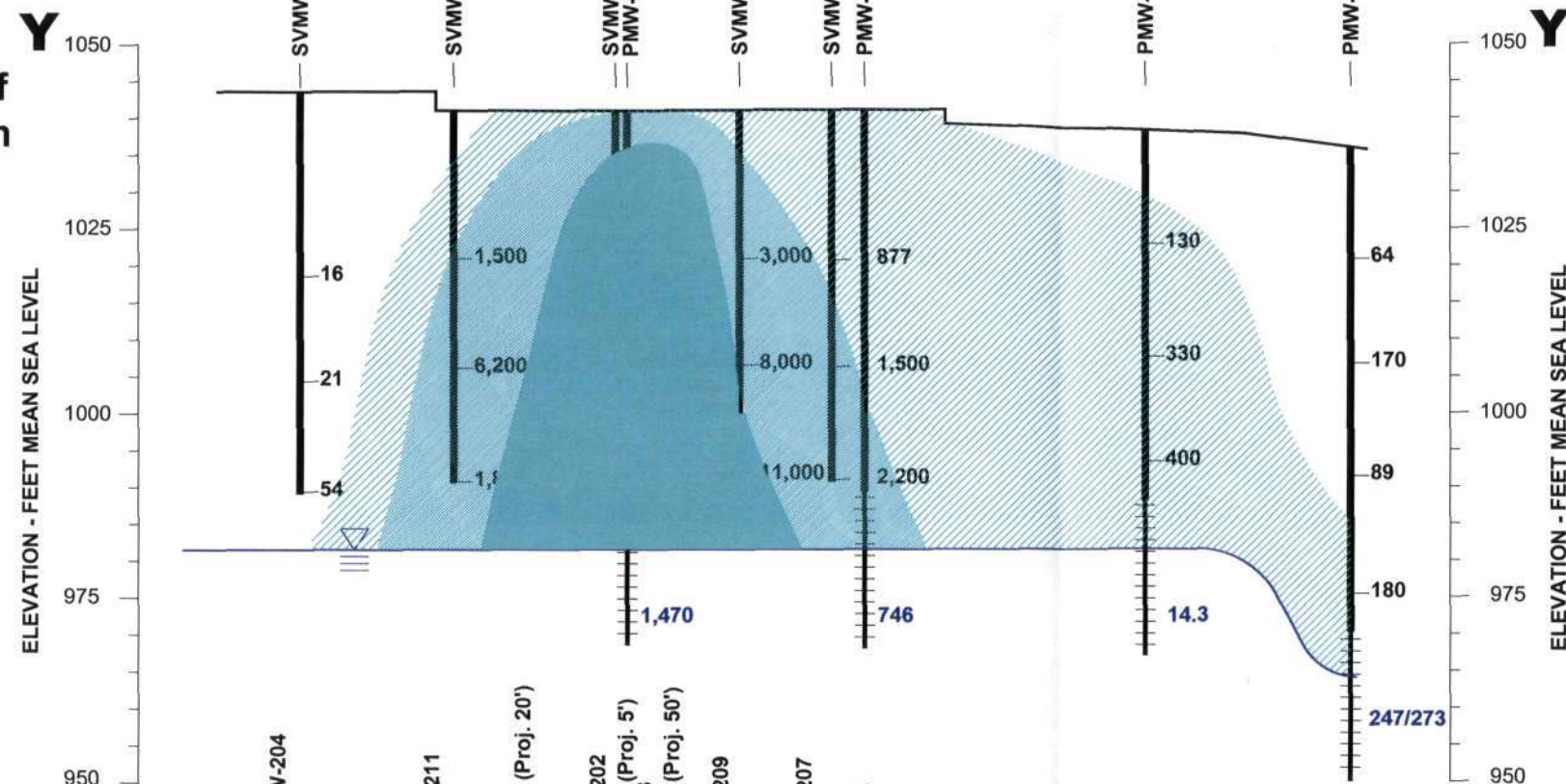
1. All locations are approximate.
2. Groundwater sampling results are for samples collected 6 to 8 January 2003 except for Holchem wells MW-6, MW-12 and MW-13 which were collected on 13 to 15 August 2002.
3. The location of this cross section is shown on Figure 15.

**Erler & Kalinowski, Inc.**

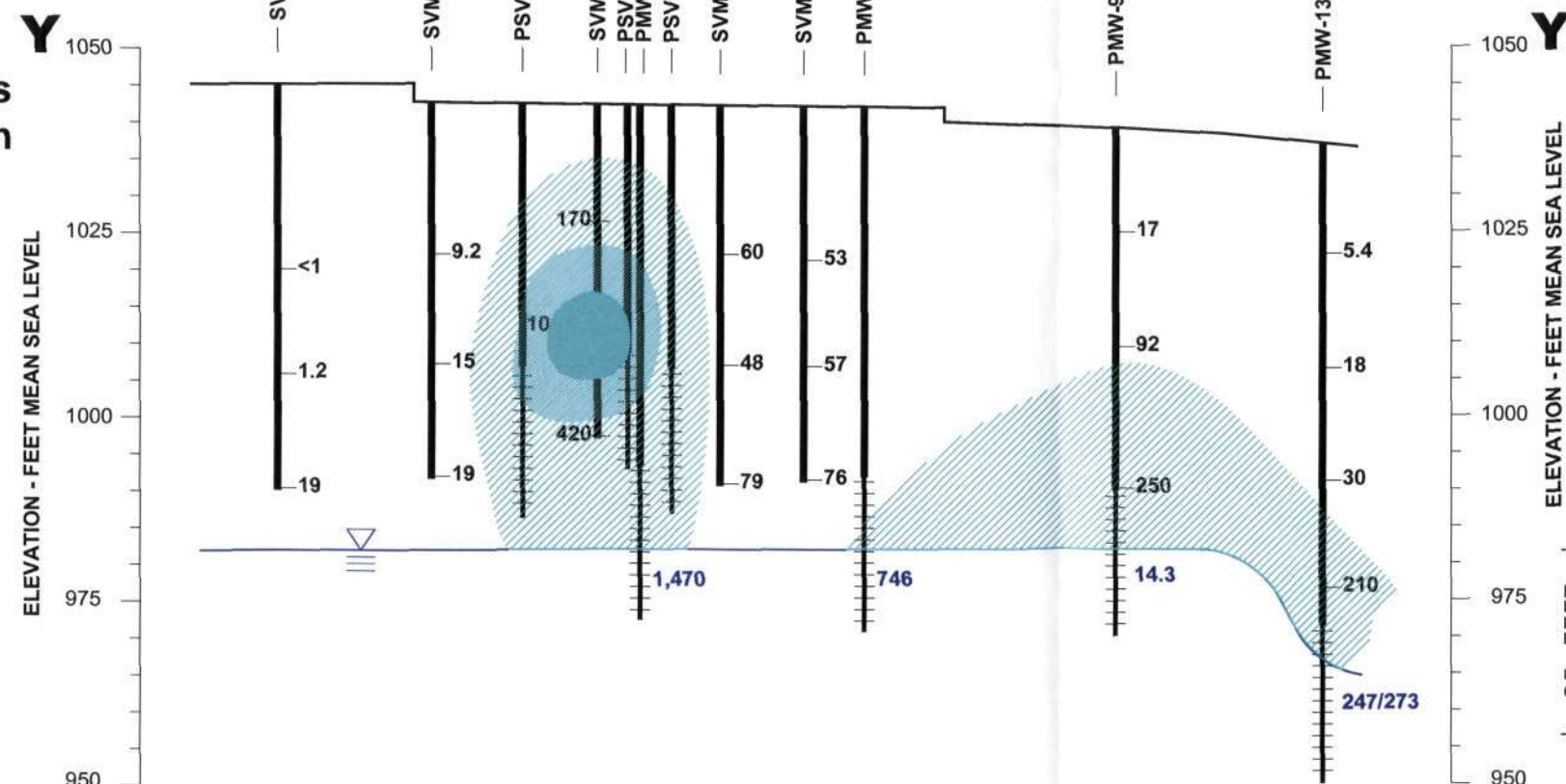
Cross-Section  
of Distribution of PCE  
in Groundwater  
Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03  
**Figure 58**



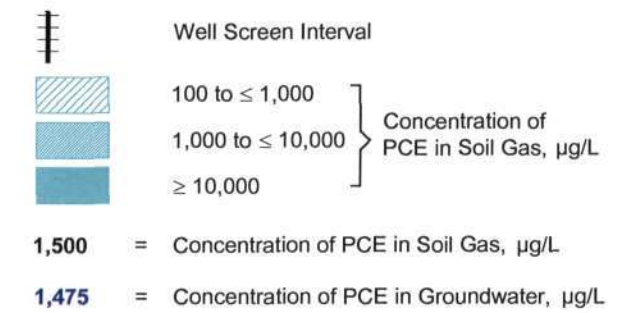
# Prior to Start of SVE Operation



# After 3 Months of SVE Operation



## Legend:



## Abbreviations:

PCE = Tetrachloroethene

µg/L = micrograms per liter

## Note:

1. Groundwater sampling results are for samples collected on 6 to 8 January 2003.
2. Location of the cross-section is shown on Figure 11.
3. Soil vapor extraction systems began operation in September 2002.

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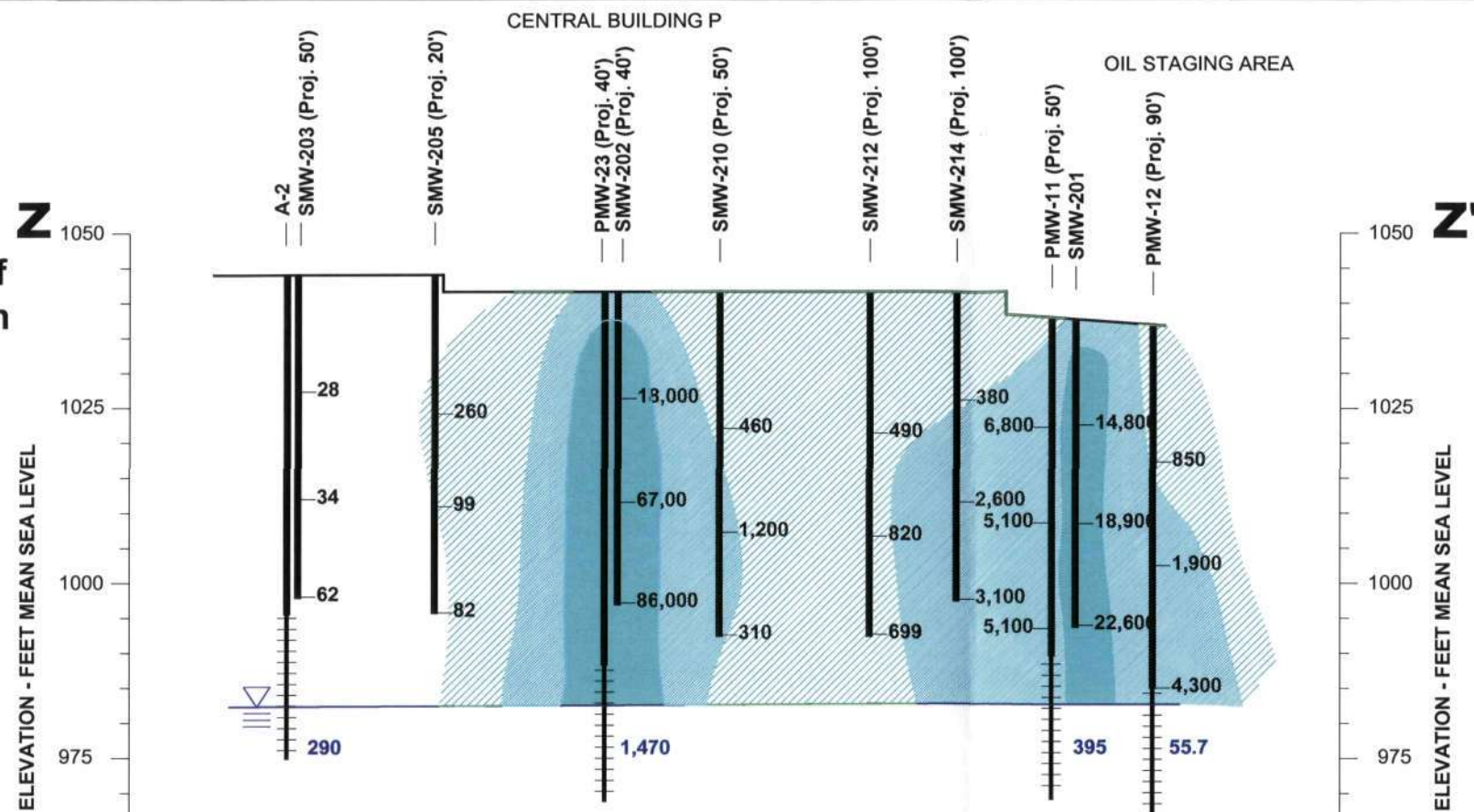
Distribution of PCE in Soil Gas  
Before Start and After 3 Months  
of SVE at Cross-Section Y-Y'

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

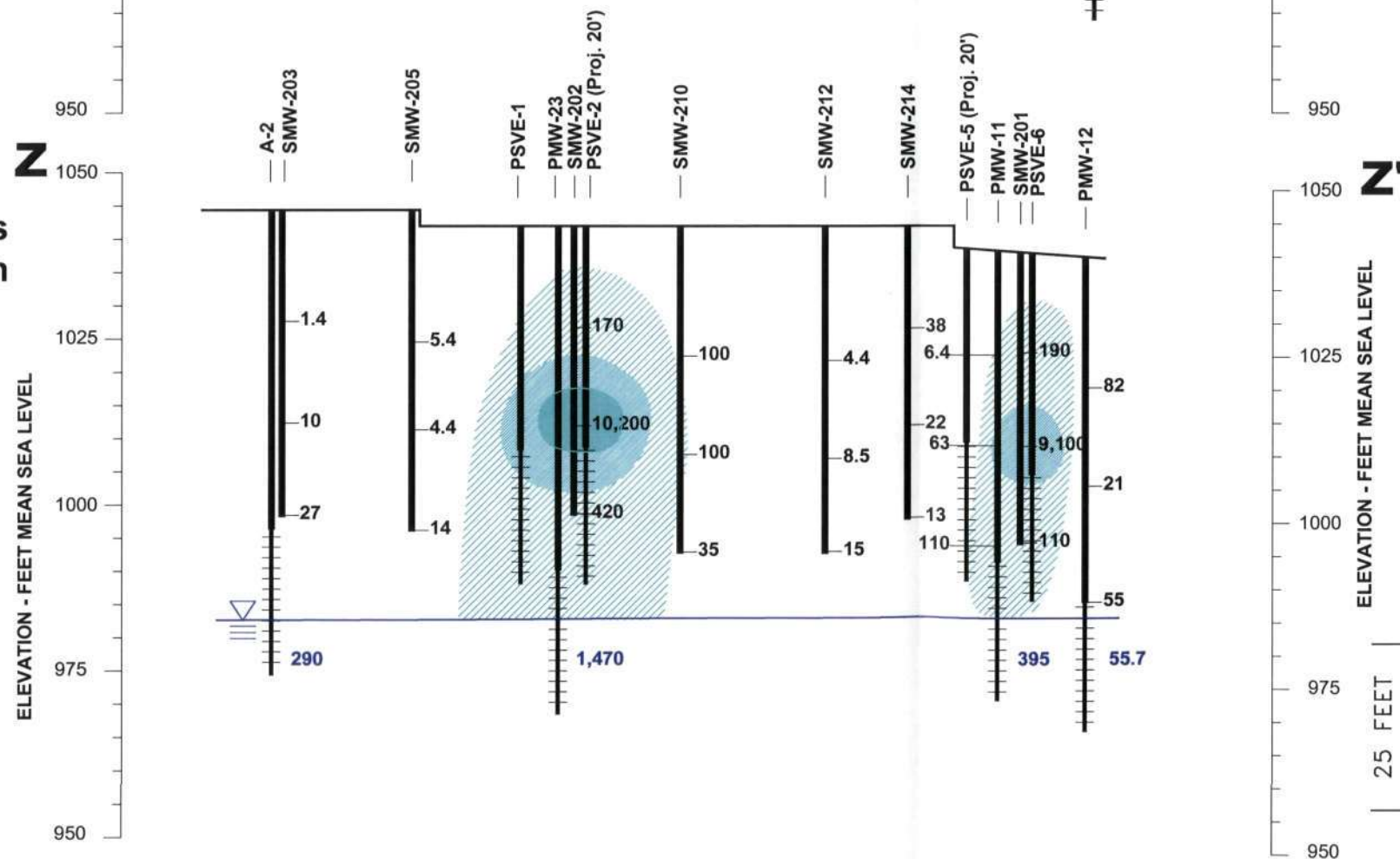
Figure 59



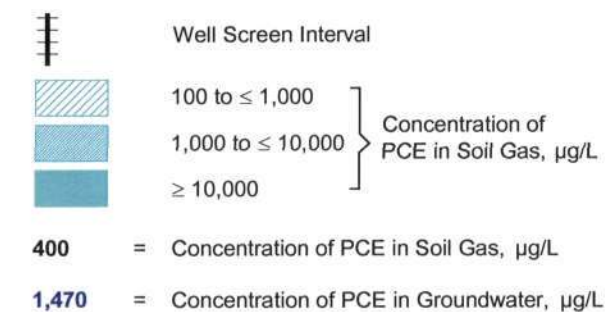
# Prior to Start of SVE Operation



# After 3 Months of SVE Operation



## Legend:



## Abbreviations:

PCE = Tetrachloroethene  
 µg/L = micrograms per liter  
 SVE = Soil vapor extraction

## Note:

- Groundwater sampling results are for samples collected on 6 to 8 January 2003, except at well A-2, which is from 14 August 2002.
- Location of the cross-section is shown on Figure 11.
- Soil vapor extraction systems began operation in September 2002.

**Erler & Kalinowski, Inc.**

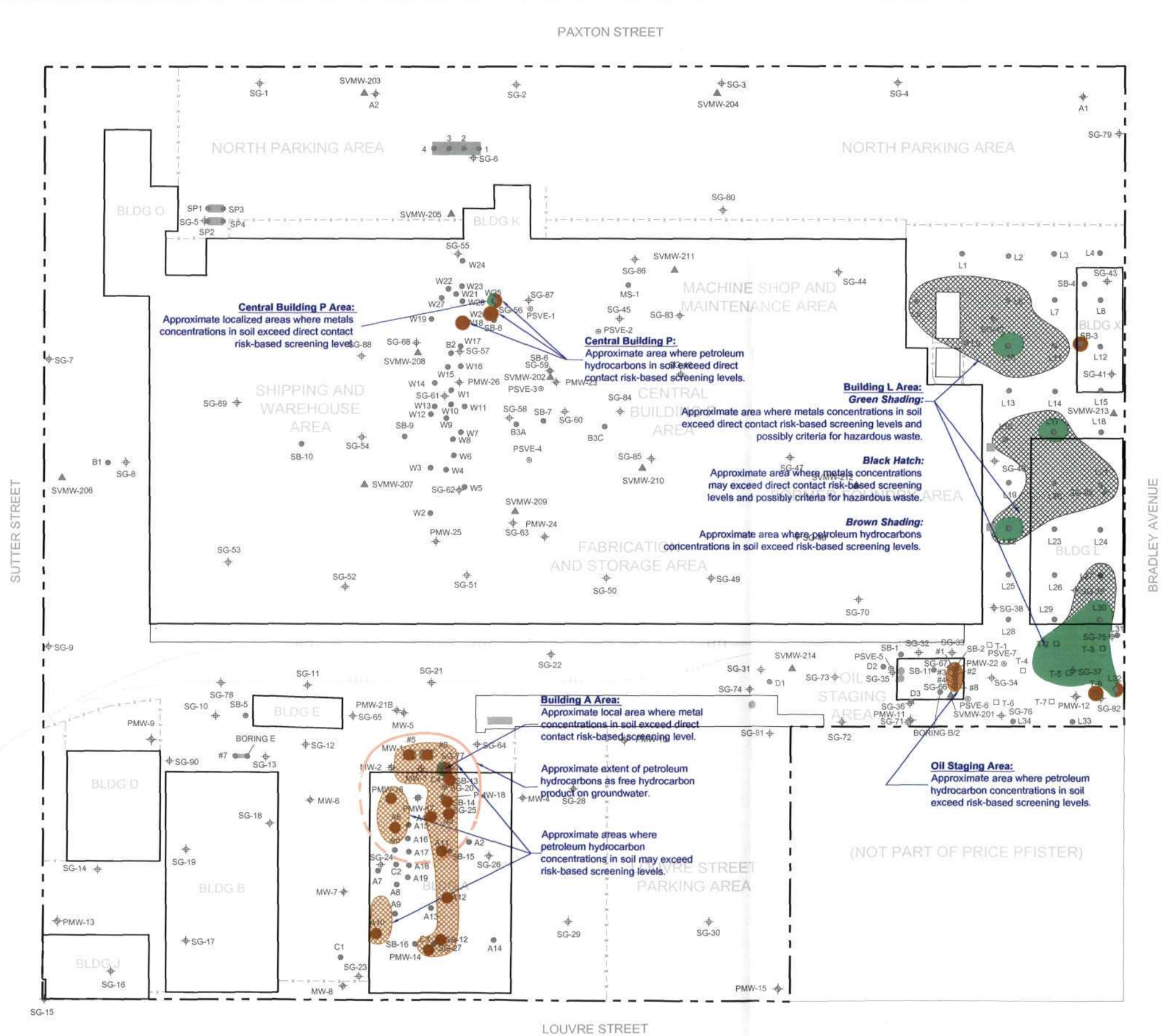
Distribution of PCE in Soil Gas  
 Before Start and After 3 Months  
 of SVE at Cross-Section Z-Z'

Price Pfister, Inc.  
 Pacoima, CA

February 2003  
 EKI A20034.03

Figure 60





# Legend:

- Soil Sample
- Trench Soil Sample
- Soil Gas Grab Sample
- Soil Vapor Monitoring Well
- Soil Vapor Extraction Well
- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Free Hydrocarbon Product Collection Well
- Soil Vapor Monitoring/Free Hydrocarbon Product Collection Well
- Former or Existing Above Ground or Underground Storage Tank
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- Fence

# Note:

- All locations are approximate.

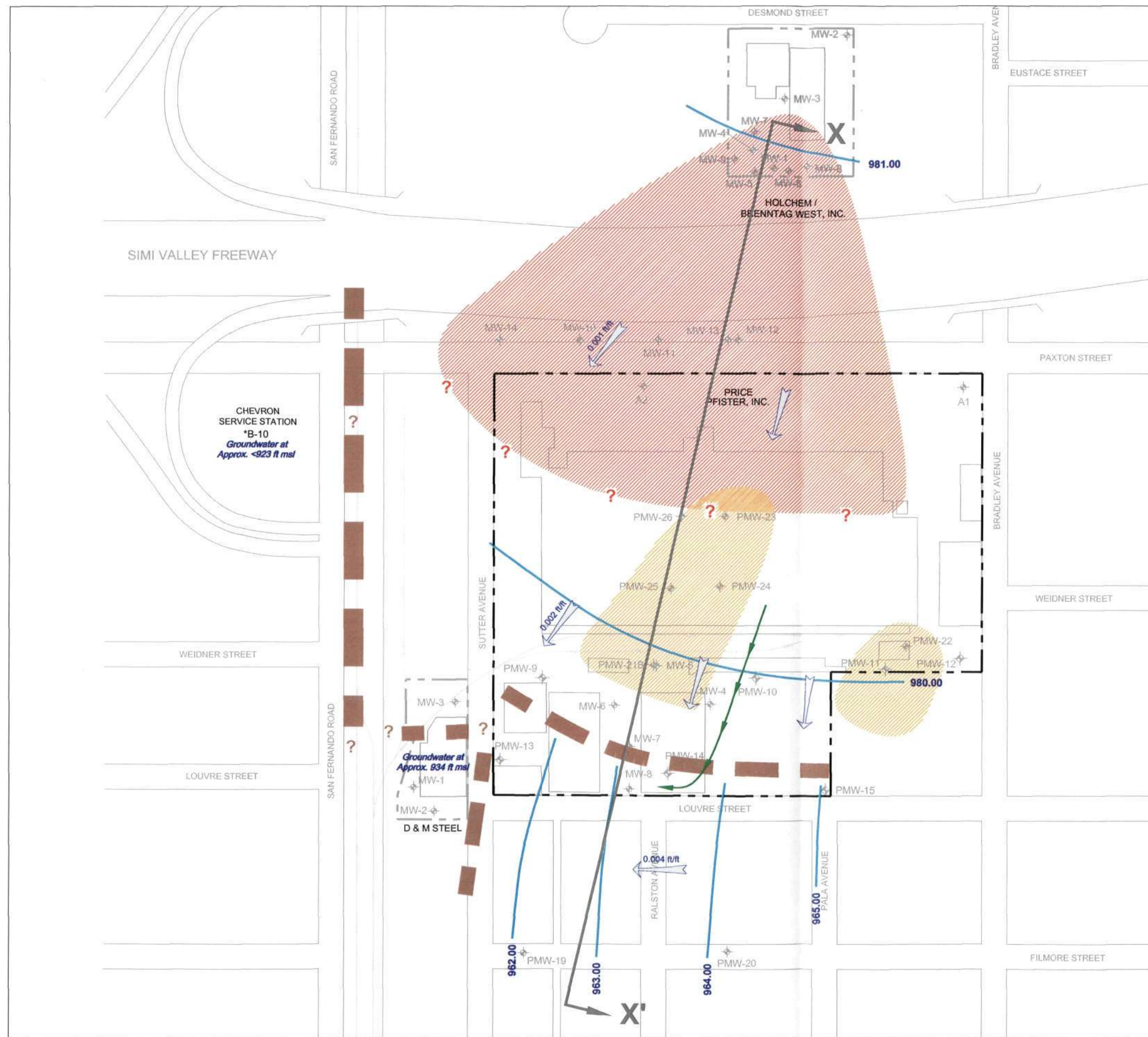
**Erler & Kalinowski, Inc.**

Illustration of Areas with Non-VOCs in Soil Exceeding Direct Contact Risk-Based Screening Levels

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 61





#### Legend:

- Groundwater Monitoring Well
- Soil Vapor/Groundwater Monitoring Well
- Approximate Property Boundary
- Out-of-Service Railroad Spur
- Inferred Groundwater Elevation Contour; ft msl
- Apparent Concealed Fault Zone
- Magnitude and Direction of Horizontal Hydraulic Gradient
- Projected Groundwater Flow Path
- Cross-Section Location
- Chlorinated and Non-Chlorinated Solvent Groundwater Plume (Note 2)
- PCE Groundwater Plume (Note 2)

#### Abbreviations:

- ft msl = feet above mean sea level
- PCE = Tetrachloroethene

#### Notes:

1. All locations are approximate.
2. The general locations and orientations of the areas of groundwater with higher concentrations of PCE and chlorinated solvents are shown. The full extent is not shown.

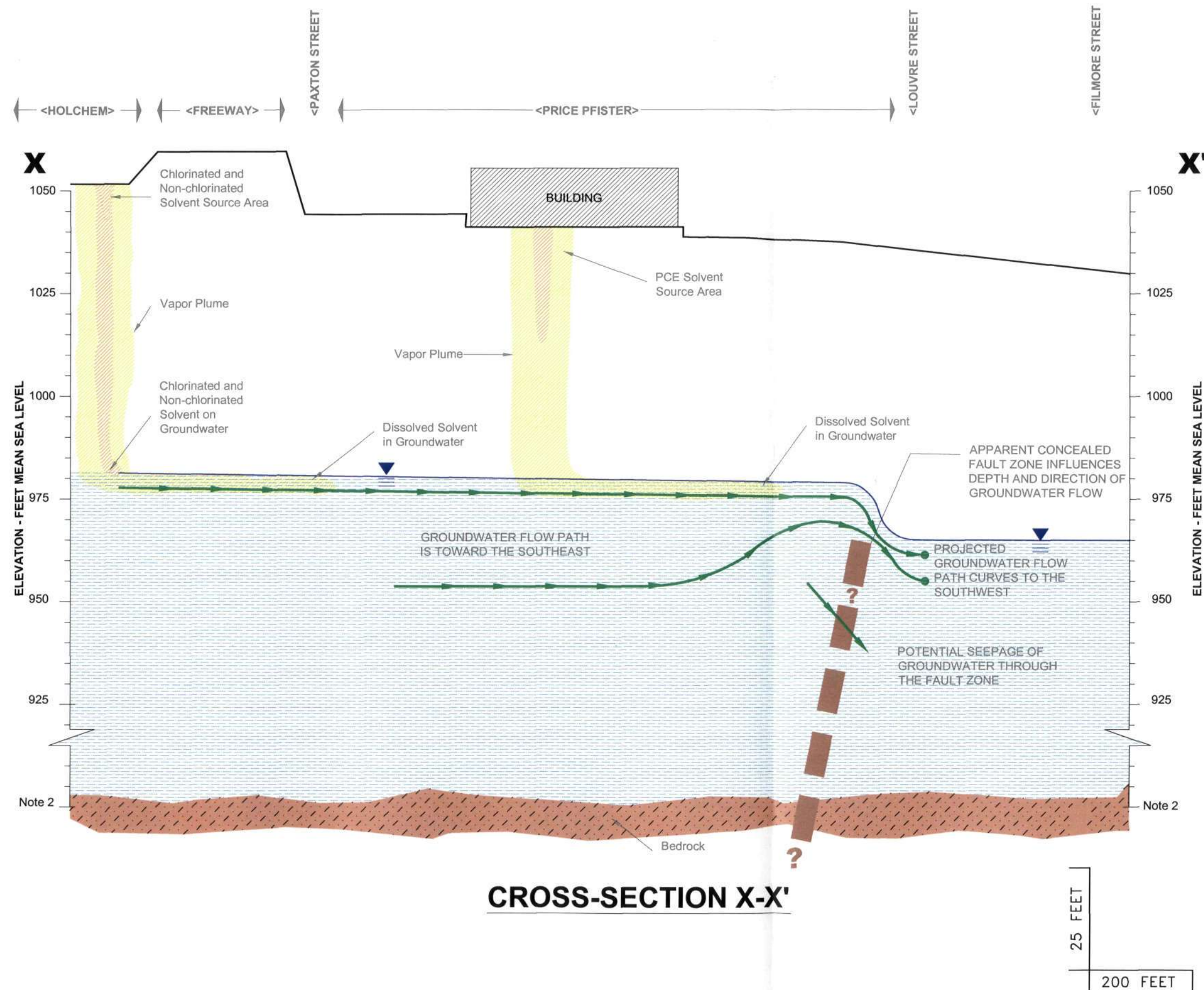
**Erler &  
Kalinowski, Inc.**

Illustration of Conceptual Model  
for VOCs in Groundwater  
Plan View

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 62





#### Legend:

→ Projected Groundwater Flow Path

#### Abbreviation:

PCE = Tetrachloroethene

#### Note:

1. All locations are approximate.
2. The depth to bedrock is not known but is likely more than 250 feet below ground surface or lower than 800 feet mean sea level.
3. This figure provides a conceptual illustration of the pathways for solvents in soil and groundwater. The full extent of solvents in soil and groundwater is not shown.

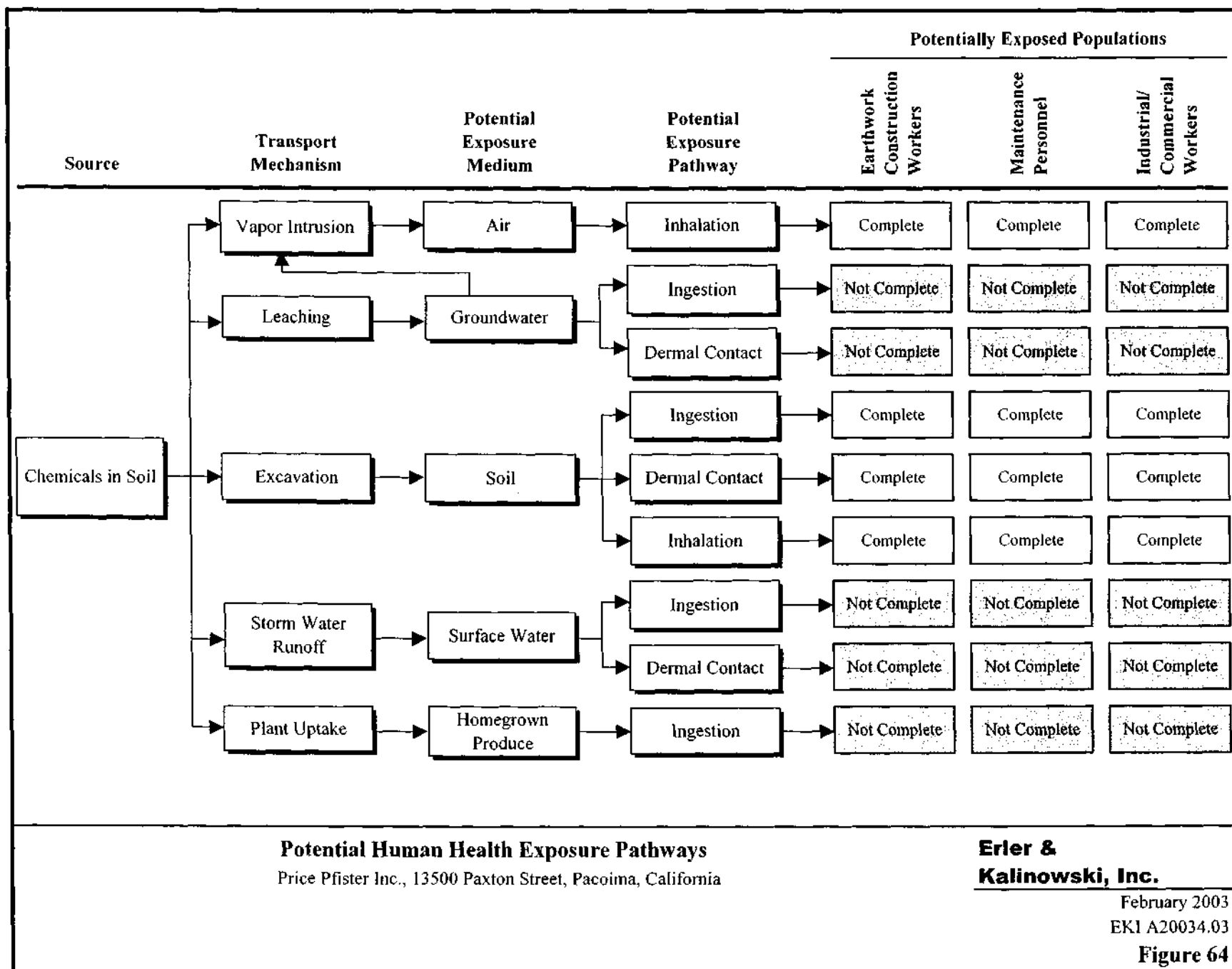
**Erler &  
Kalinowski, Inc.**

Cross-Section View Illustrating  
Conceptual Site Model  
for VOCs in Soil and Groundwater

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure 63







## **APPENDIX A**

### **BOREHOLE LOGS AND WELL CONSTRUCTION DETAILS**

Key to Borehole and Well Construction Logs

Typical Well Construction Diagrams (5)

Borehole and Well Construction Logs for the following:

- Soil Vapor/Groundwater Monitoring Wells PMW-9 through PMW-15, and PMW19 through PMW-26
- Free Hydrocarbon Product Collection Wells PMW-16 and PMW-18
- Soil Vapor/Free Hydrocarbon Product Collection Well PMW-17
- Soil Vapor Extraction Wells PSVE-1 through PSVE-7
- Soil Vapor Monitoring Wells SVMW-203 through SVMW-214
- Boreholes A1 through A14, MS-1, and W1 through W27

Borehole and well construction logs for prior investigations performed by EKI were submitted in previous reports to the Regional Water Quality Control Board, Los Angeles Region.



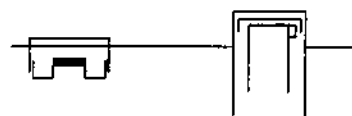
# Key to Borehole and Well Construction Logs

## Blow Count (Penetration Resistance)

Recorded as the number of blows required to drive the sampler 0.5 feet into undisturbed sediment. Sample drive hammer weight  $\approx$  140 pounds; fall  $\approx$  30 inches.

## Well Cover Types

Flush mount      Stove pipe



## Organic Vapor Meter (OVM) Readings

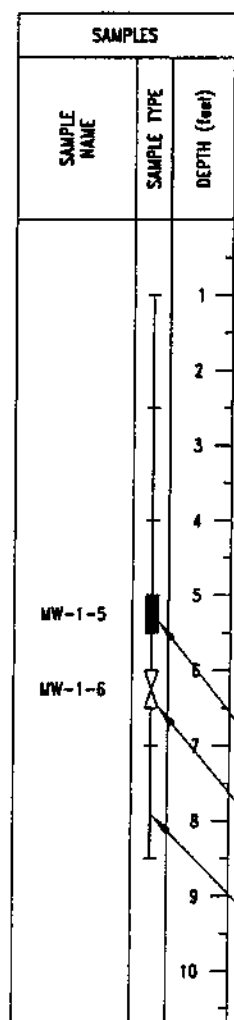
### Locations Monitored

BZ - Breathing zone      C - Drill cuttings  
A - Top of auger      S - Sample

Reported in volumetric parts per million (ppmv).

## Color Description

10YR      Munsell® alphanumeric system  
4/3      Description of soil or rock color



## Bedding Contacts

All contact depths are approximate

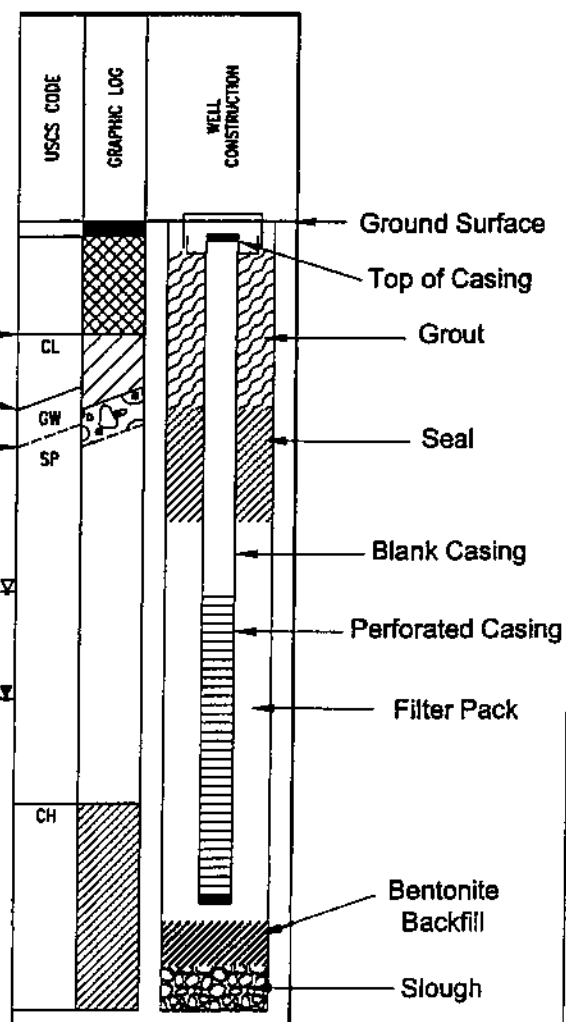
Observed contact → CL  
Observed gradational contact → GW  
Inferred contact (Not directly observed) → SP

## Water Levels

First encountered groundwater level → 11/5/99  
Static groundwater level → 11/5/99

## Sample Types




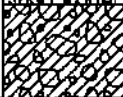



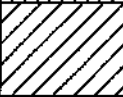






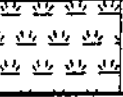
Sample retained for physical analysis by laboratory  
Sample retained for chemical analysis by laboratory  
Soil sample interval





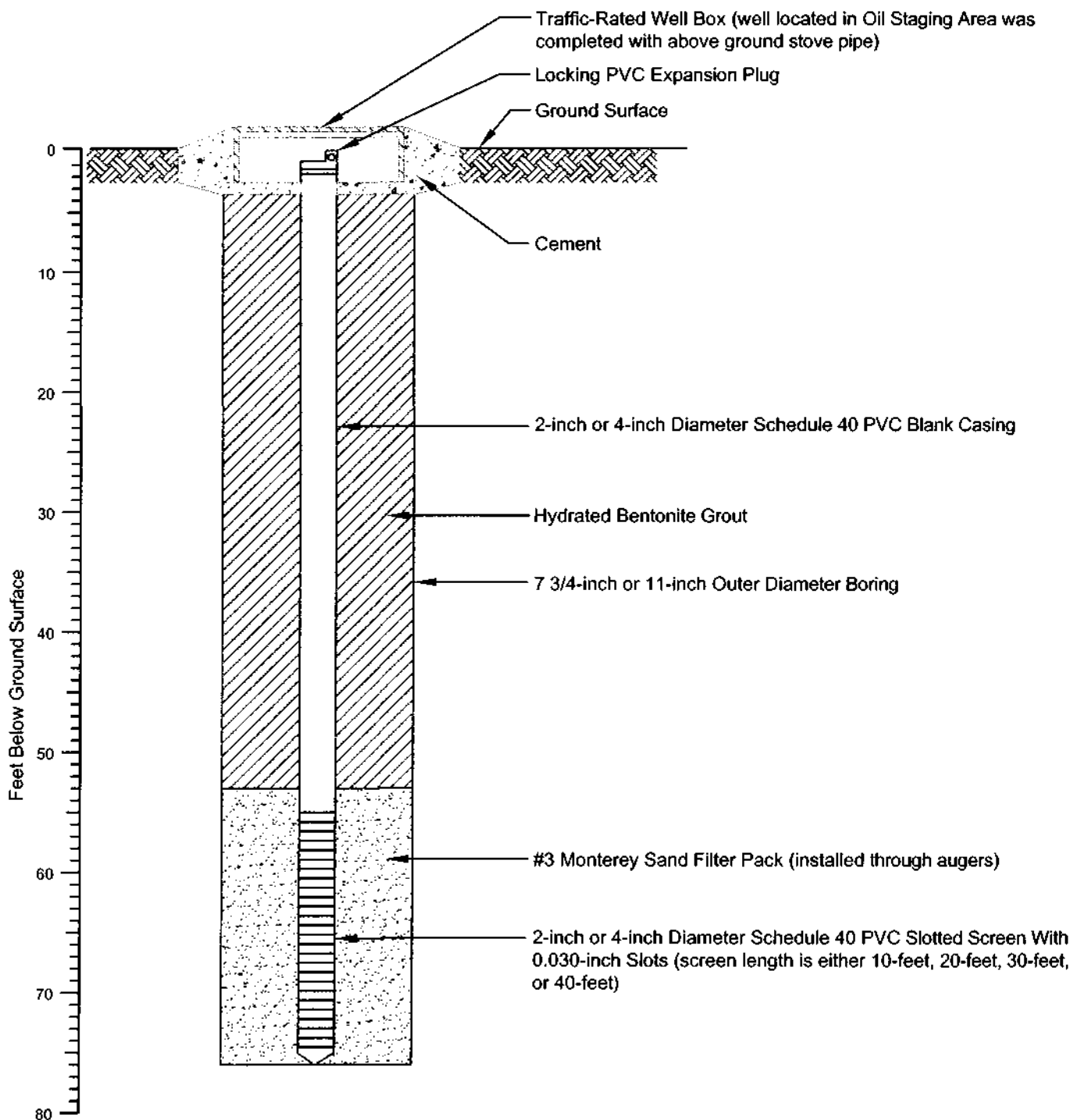
## Key to Borehole and Well Construction Logs

### SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPHIC	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		(LITTLE OR NO FINES)		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	SAND AND SANDY SOILS	(APPRECIABLE AMOUNT OF FINES)		<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
		CLEAN SANDS		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		(LITTLE OR NO FINES)		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
FINE GRAINED SOILS	SANDS WITH FINES	(APPRECIABLE AMOUNT OF FINES)		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES
		(APPRECIABLE AMOUNT OF FINES)		<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES
	SILTS AND CLAYS			<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
				<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY
				<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
	HIGHLY ORGANIC SOILS			<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS





## Erler & Kalinowski, Inc.

### Construction Details for Typical Groundwater Monitoring Well

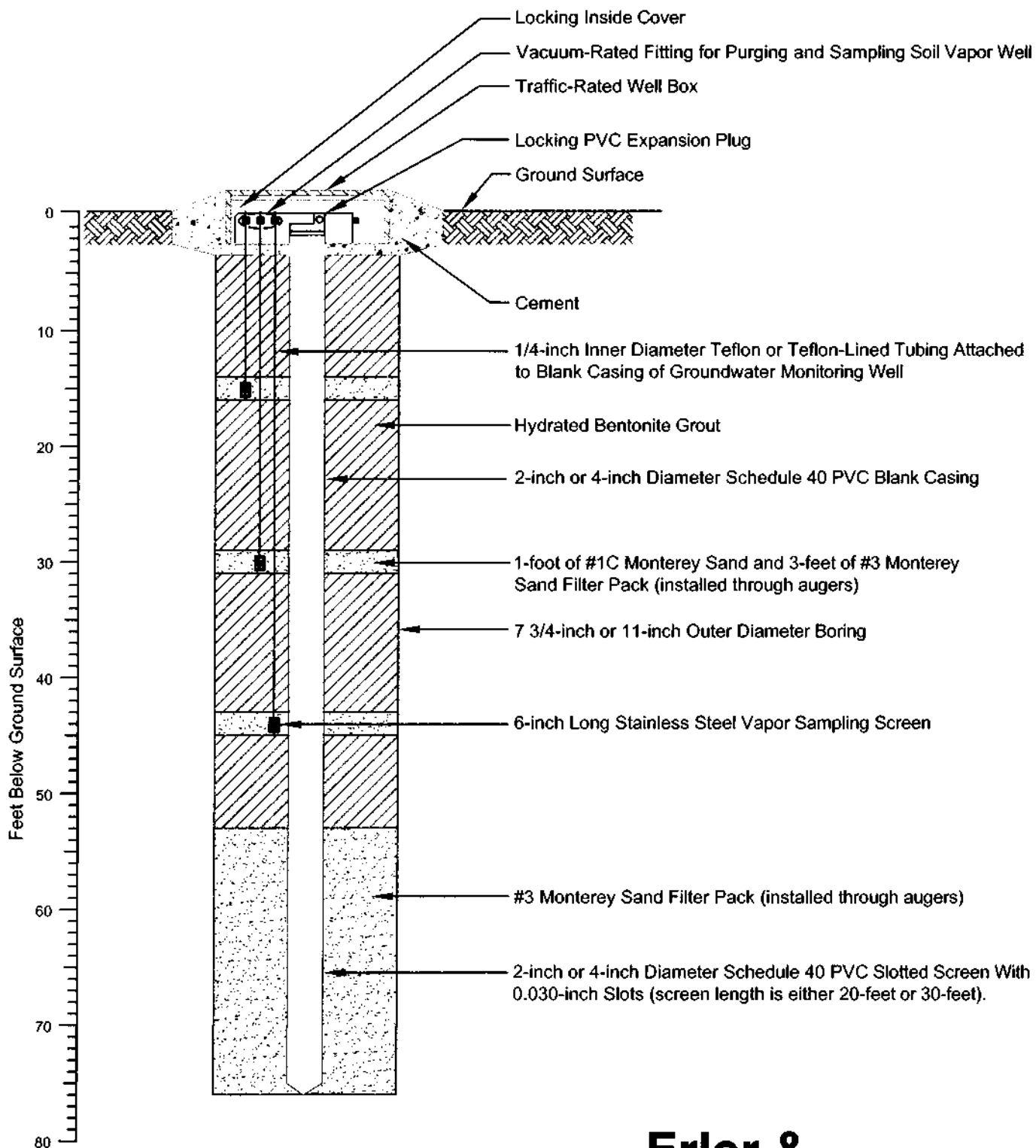
#### Notes:

1. The depths shown are approximate.
2. Actual depths of the groundwater well screen varies depending on depth to groundwater.
3. Not to scale.

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure A1





**Notes:**

1. The depths shown are approximate.
2. Actual depths of the vapor sampling screens and groundwater well screen vary depending on depth to groundwater.
3. For wells PMW-13, PMW-14, PMW-15, a fourth vapor sampling screen was attached to the blank casing of the groundwater monitoring well due to the greater depth that groundwater is encountered in these locations.
4. Not to scale.

## Erler & Kalinowski, Inc.

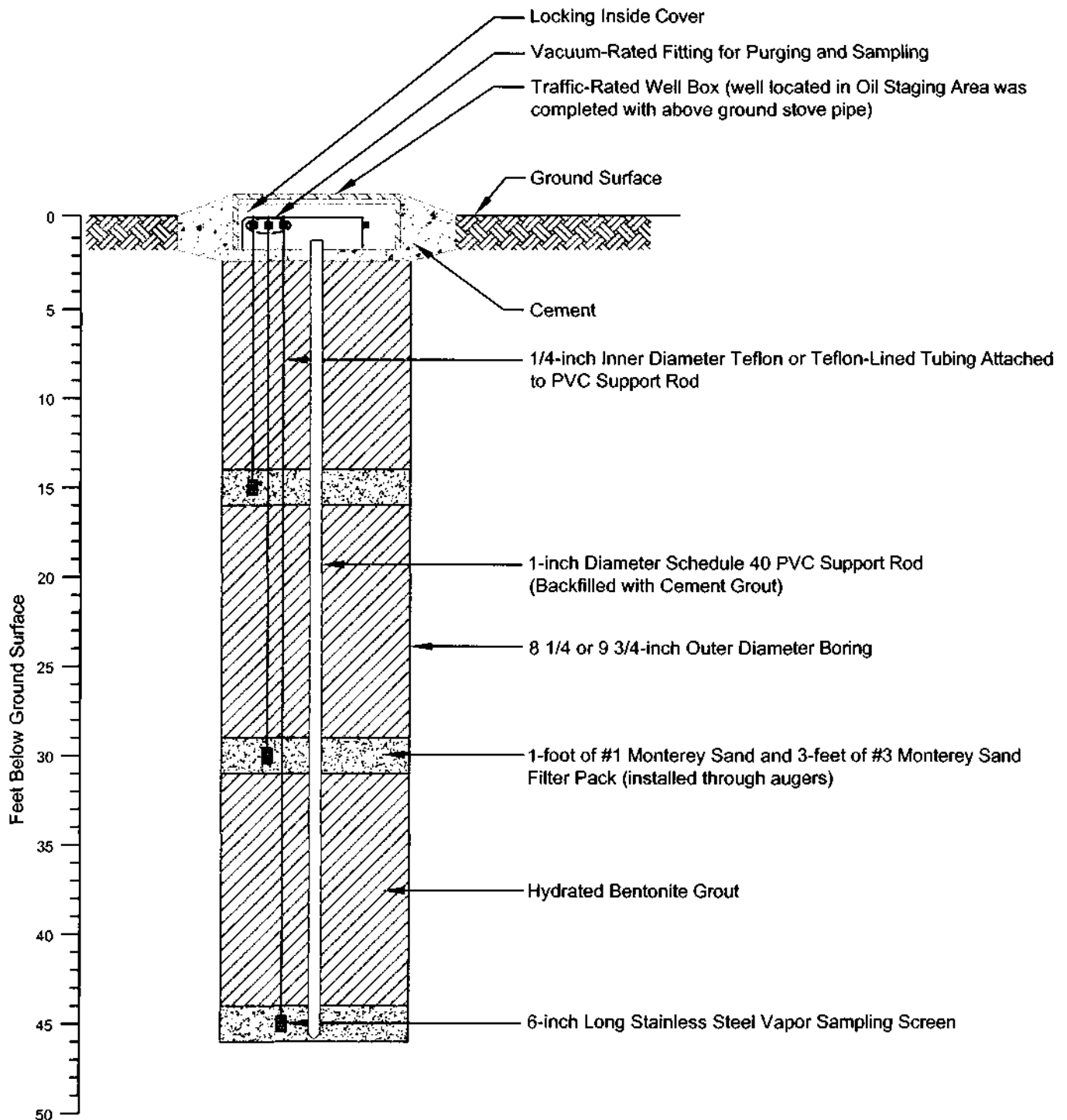
### Construction Details for Typical Soil Vapor/ Groundwater Monitoring Well

Price Pfister, Inc.  
Pacoima, CA

February 2003  
EKI A20034.03

**Figure A2**





## Erler & Kalinowski, Inc.

Construction Details for  
Typical Vapor Monitoring Well

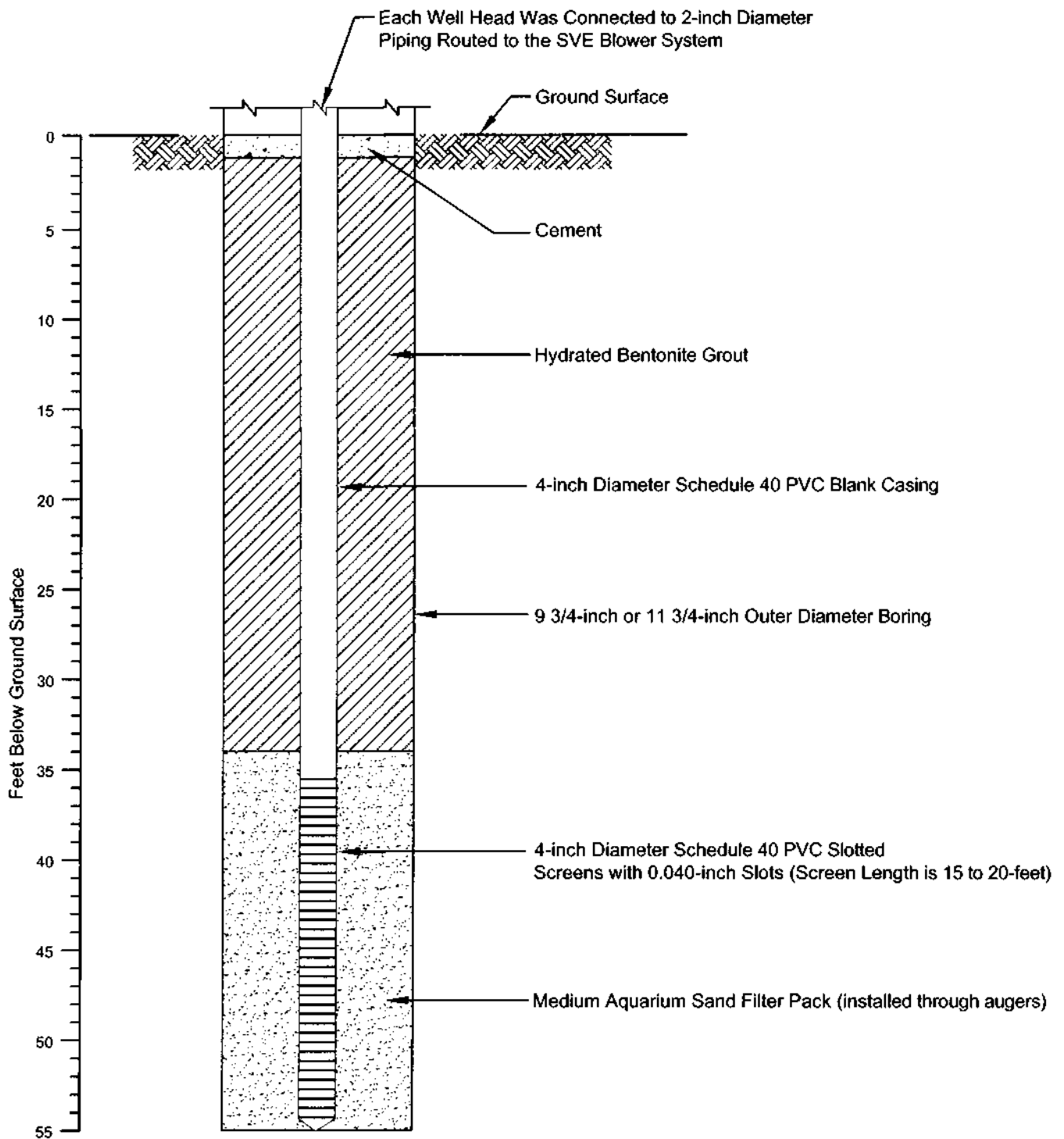
### Notes:

1. The depths shown are approximate.
2. Actual depths of the vapor sampling screens varies depending on depth to groundwater.
3. Not to scale.

Price Pfister, Inc.  
Pacoima, CA  
February 2003  
EKI A20034.03

Figure A3





**Notes:**

1. The depths shown are approximate.
2. Not to scale.

## Erler & Kalinowski, Inc.

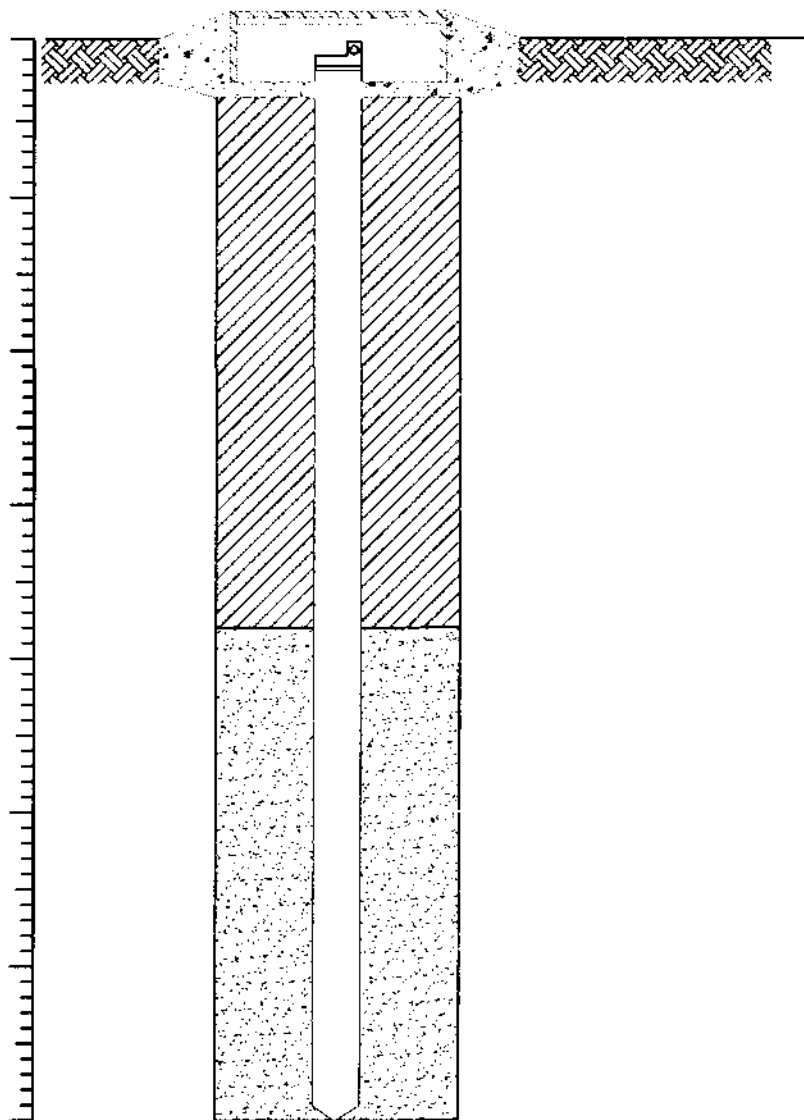
Construction Details for  
Typical Soil Vapor Extraction (SVE) Well

Price Pfister, Inc.  
Pacoima, CA

February 2003  
EKI A20034.03

Figure A4





## **Erler & Kalinowski, Inc.**

Construction Details for Typical  
Free Hydrocarbon Product (FHP)  
Collection Well

Price Pfister, Inc.  
Pacoima, CA

February 2003  
EKI A20034.03

Figure A5



# Borehole & Well Construction Log



BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - North of Building D				BOREHOLE / WELL NAMEPMW-9			
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister			
DRILLING METHODHollow-Stem Auger (CME 95 Rig)				PROJECT NUMBERA20034.03, Task 1			
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM TO	DATE STARTED	7/10/02	DATE COMPLETED	7/11/02
BLANK CASINGSch 40 PVC		DIAMETER (inches)2.00	FROM 0.8 TO 50.0	BOREHOLE DIAM (inches)	10.0	TOTAL DEPTH (feet)	71.5
PERFORATED CASINGSch 40 PVC with 0.03-inch slots		DIAMETER (inches)2.00	FROM 50.0 TO 70.0	DATUMNAD 1927			
GROUTMedium Bentonite Chips (hydrated in place)			FROM 2.5 TO 46.0	TOP OF CASING	1033.16	GROUND SURFACE	1033.96
SEALMedium Bentonite Chips (hydrated in place)			FROM 46.0 TO 48.0	LOGGED BYLogan Hansen			
FILTER PACK#3 Sand (0.85 mm - 2.36 mm)			FROM 48.0 TO 70.0	CHECKED BYEarl James, RG #4544			

**REMARKS** Three soil vapor monitoring zones were built within the seal of this well at 15, 30, and 45 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)					DEPTH (feet)
15:45	PMW-9-2-3		0.5	19	BZ=0	2	Asphalt, 3.5-inches.	SP		
			0.2	30			SAND WITH SILT, Brown [10YR 4/2]; 5-15% silt; 5-10% fine gravel; sand (80,10,10); dry to moist.			
			0	40						
			0.7	27			As above; gravel to 8-inches in diameter in cuttings; difficult drilling.			
16:05	PMW-9-7-8			50		4		SW-SM		
							SAND WITH SILT AND GRAVEL, Dark brown [10YR 3/3]; 5-10% silt; 5-15% fine to coarse gravel and freshly broken gravel fragments (angular to subrounded); sand (40,40,20); dry.			
07:30	PMW-9-15-16		0.8	38		16				
				50			As above; one large, greenish black, dense angular gravel clast (1.5-inches in diameter).			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-9	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		I	0.3	50(6)		20	<p><u>SAND WITH SILT AND GRAVEL</u>. Dark brown [10YR 3/3]; 5-10% silt; 5-15% fine to coarse gravel and freshly broken gravel fragments (angular to subrounded); sand (40,40,20); dry. (Continued)</p> <p>As above; white powdery material that crumbles easily and does not react with acid on edges of gravel; gravel appears to be weathered.</p>	SW-SM			
		I	0.5	50(6)	S=17.6	22	As above.				
		I	0.5	50(6)		24	As above.				
		I	0.5	50(6)		26	As above.				
		I	0.5	50(6)		28	As above.				
		I	0.5	50(6)		30	As above.				
		I	0.5	50(6)		32	As above.				
		I	0.5	50(6)		34	As above.				
		I	0.5	50(6)		36	As above; common iron oxidation stains on angular broken gravel fragments that crumble easily; gravel appears to be weathered.				
		I	0.5	50(6)		38	As above.				
		I	0.5	50(6)	S=13.5	40	As above; gravel appears to be weathered.				
		I	0.5	50(6)		42	As above.				
		I	0.5	50(6)		44	As above.				
		I	0.5	50(6)		46	As above; increasing silt to 5-15%; angular gravel to 1.5-inches in diameter.				

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG.GPJ EKL.GDT 11/11/02





**Erler &  
Kalinowski,  
Inc.**

# Borehole & Well Construction Log













PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-9	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	SAND WITH SILT AND GRAVEL. Dark brown [10YR 3/3]; 5-15% silt; 5-15% fine to coarse gravel and freshly broken gravel fragments (subangular to subrounded); sand (40,40,20); dry.	SW-SM			
			0.5 0	25 50	BZ=0	50	As above; moist to wet.				
						52					
						54	As above; wet.				
			0.5 0.5 0.5	18 30 50		56	As above; sand is coarser (10,80,10); 0-5% fine gravel; increasing moisture; moist to wet in shoe of sampler.  SILTY SAND. Dark brown [10YR 3/3]; 15-20% silt; few fine gravels; 1% clay; sand (30,50,20) then grades to mostly fine grained at 56 feet bgs; wet.	SM			
					58						
			0.5 0.5 0.5	17 22 39	60	As above; coarser sand (30,50,20); wet.					
					62						
					64						
			0.5 0.5 0.5	19 34 50	66	As above.					
					68						
			0.5 0.5 0.5	17 19 28	70	As above.					
					72	Slough at bottom of borehole. Total Depth = 71.5 feet.					
						74					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Northern Side of Louvre Street Parking Lot		BOREHOLE / WELL NAME PMW-10	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979		PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)		PROJECT NUMBER A20034.03, Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet) TO	DATE STARTED 7/15/02 DATE COMPLETED 7/15/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 2.00	FROM (feet) 0.8 TO 53.0	BOREHOLE DIAM (inches) 10.0 TOTAL DEPTH (feet) 73
PERFORATED CASING Sch 40 PVC with 0.03-inch slots	DIAMETER (inches) 2.00	FROM (feet) 53.0 TO 73.0	DATUM NAD 1927
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.5 TO 49.0	TOP OF CASING 1038.53 GROUND SURFACE 1039.33
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet) 49.0 TO 51.0	LOGGED BY Logan Hansen
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet) 51.0 TO 73.0	CHECKED BY Earl James, RG #4544

**REMARKS** Three soil vapor monitoring zones were built within the seal of this well at 18, 33, and 48 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
07:30	PMW-10-2.5-3.5		0.4	29		2	SW-SM		
			0.5	50					
			0	18					
			0.7	26					
07:50	PMW-10-7-8		0.7	50	BZ=0	8			
08:05	PMW-10-8.5-10.5		0.7	50		10			
			0.1						
			0.5	26					
			0.5	50					
			0.1						
			0.4	32	S=23.1	12			
			0.5	50					



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Inc.**

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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-10	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	SILTY SAND, Yellowish brown [10YR 5/4]; 15-25% silt; 5-15% fine gravel and freshly broken gravel fragments. (Continued)	SM			
						50	As above.				
			0.4 0.1	50(6) 50		52					
						54					
			0.5 0.1	50		56	As above; moist to wet; gravel appears weathered.				
						58	SAND, Dark brown [10YR 3/3]; 5-10% fine gravel and freshly broken gravel fragments (subangular to subrounded); 1% silt; sand (40,50,10); wet.	SW			
			0.5 0.5 0.5	50		60					
						62	As above; common iron oxidation stains on gravels; gravel appears weathered.				
						64					
			0.5 0.5 0.5	19 36 40		66	As above; coarser sand (30,60,10); 5% fine gravel.				
						68					
						70					
			0.5 0.5 0.5	19 30 31		72	As above; increasing silt; few coarse gravels at approximately 72 feet bgs; sand is mostly fine grained.	SM			
						74	SILTY SAND, Dark olive brown [2.5Y 3/2]; 25-35% silt; fine grained sand; non-plastic; soft to firm; low dry strength; moist. Total Depth = 73 feet.				

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG GPJ EKI GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Oil Staging Area			BOREHOLE / WELL NAME PMW-11		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/10/02	DATE COMPLETED 7/10/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 2.00	FROM (feet) 1.0	TO 50.0	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 71.5
PERFORATED CASING Sch 40 PVC with 0.03-inch slots	DIAMETER (inches) 2.00	FROM (feet) 50.0	TO 70.0	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 3.0	TO 46.0	TOP OF CASING 1038.11	GROUND SURFACE 1039.06
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 46.0	TO 48.0	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet) 48.0	TO 70.0	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were built within the seal of this well at 15, 30, and 45 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION						
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)					DEPTH (feet)					
07:45	PMW-11-2.5-3.5		0.3	18	BZ=0	2	Concrete, 6-inches.	SM							
			0.4	38			<u>SILTY SAND</u> , Dark brown [10YR 3/3]; 10-20% silt; 5-15% fine to coarse gravel and freshly broken gravel fragments; sand (90,5,5); dry.								
			0.5	50						As above; common iron oxidation stains on angular gravel that crumbles easily; gravel appears to be weathered.					
			0.1	32											
			0.9	50											
08:05	PMW-11-7-8		0.9	28		4									
				50			8								
			08:10	PMW-11-8.5-10.5							1	31	6		
												50			10
											0.5	50(6)			
0.5		14													
0.4	27					16	As above; gravel appears weathered.								
0.5	50		<u>SILTY SAND WITH GRAVEL</u> , Dark brown [10YR 3/3]; 10-20% silt; 15-25% fine gravel and freshly broken gravel fragments (subangular to subrounded); few coarse gravels. As above; one large, greenish black, dense angular gravel clast (1.5-inches in diameter).												
0.4	30			SM											
0.5	50														
0.2	50(6)														



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-11	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:02	PMW-11-32.5-33.5	I	0.5				<u>SILTY SAND WITH GRAVEL</u> , Dark brown [10YR 3/3]; 10-20% silt; 15-25% fine gravel and freshly broken gravel fragments (subangular to subrounded); few coarse gravels. (Continued)	SM			
		I	0.3	29		20	As above; gravel to 1.5-inches in diameter; gravel appears weathered at 20.75 feet bgs.				
		I	0.5	50							
		I	0.5	23		22	<u>SILTY SAND</u> , Dark brown [10YR 3/3]; 10-20% silt; 5-10% gravel and freshly broken gravel fragments.	SM			
		I	0.5	50			As above; gravel appears weathered.				
		I	0.1			24					
		I	0.5	35			As above; gravel appears weathered.				
		I	0.3	50		26					
		I	0.3	32			As above; gravel appears weathered; poor recovery because gravel plugged liners.				
		I	0	50		28					
		I	0.5	30							
		I	0.1	50		30					
		I				32					
		I	1	34			As above; gravel appears weathered.				
		I		50		34	<u>SILTY SAND WITH GRAVEL</u> , Dark brown [10YR 3/3]; 10-20% silt; 15-25% fine gravel and freshly broken gravel fragments; increasing medium to coarse grained sand.	SM			
		I	0.5	38			As above; gravel appears weathered.				
I	0.5	50		36							
I	0.4	50(6)									
I	0.5										
I	0.5	25		40	As above.						
I	0.5	50									
I	0.5	30			<u>SILTY SAND</u> , Dark brown [10YR 3/3]; 10-20% silt; 5-10% gravel and freshly broken gravel fragments.	SM					
I	0.2	50		42	As above; gravel appears weathered.						
I											
I	0.5	36			As above.						
I	0.4	50		44							



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-11	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:41	PMW-11-50-51		0.5	33		48	<u>SILTY SAND</u> , Dark brown [10YR 3/3]; 10-20% silt; 5-10% gravel and freshly broken gravel fragments. (Continued) As above, dry to moist.	SM			
			0.3	50							
			1	33		50	As above.				
			50								
			0.5	50(6)		52					
			0.3								
			0.5	20		54					
			0.2	50							
			0.5	29		56	Moist. As above; moist to wet; gravel appears weathered. 7/10/02	SP			
			0.2	50							
			0.5	27		58	<u>SAND</u> , Dark brown [10YR 3/3]; 5-10% fine to coarse gravel and freshly broken gravel fragments; 5% silt; sand (15,70,15); wet.				
			0.5	50							
			0.5	25		60	As above; no gravel; medium to coarse grained sand.	SW			
			0.5	50							
			0.5	25		62	<u>SAND</u> , Dark brown [10YR 3/3]; 5-10% fine gravel and freshly broken gravel fragments; 5-10% silt; fine to coarse sand.				
0.5	50										
	0.5	18		64	No gravel; moist to wet.						
	0.5	50									
	0.5	20		66	As above; common gravel; wet.						
	0.5	30									
	0.5	18		68	As above; fine to medium grained sand.						
	0.5	32									
	0.5	18		70	As above; fine to coarse sand.						
	0.5	25									
	0.5	18		72	<u>SAND</u> , Dark brown [10YR 3/3]; fine to medium grained sand; wet.	SP					
	0.5	37									
						74	Slough at bottom of borehole. Total Depth = 71.5 feet.				



# Borehole & Well Construction Log



**Erler &  
Kalinowski,  
Inc.**

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Oil Staging Area			BOREHOLE / WELL NAMEPMW-12			
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAMEPrice Pfister			
DRILLING METHODHollow-Stem Auger (CME 95 Rig)			PROJECT NUMBERA20034.03, Task 1			
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED6/24/02	DATE COMPLETED6/24/02
BLANK CASING	Sch 40 PVC	DIAMETER (inches)2.00	FROM (feet)0.6	TO55.0	BOREHOLE DIAM (inches)10.0	TOTAL DEPTH (feet)76
PERFORATED CASING	Sch 40 PVC with 0.03-inch slots	DIAMETER (inches)2.00	FROM (feet)55.0	TO75.0	DATUMNAD 1927	
GROUT	Medium Bentonite Chips (hydrated in place)		FROM (feet)2.0	TO51.0	TOP OF CASING1043.04	GROUND SURFACE1043.61
SEAL	No. 8 Bentonite Chips (hydrated in place)		FROM (feet)51.0	TO53.0	LOGGED BYLogan Hansen	
FILTER PACK	#3 Sand (0.85 mm - 2.36 mm)		FROM (feet)53.0	TO75.0	CHECKED BYEarl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were built within the seal of this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
08:30	PMW-12-1-1.5	Δ	0.5	30	S=118	Concrete, 4.5-inches.	SM			
			0.5	50		Below concrete: 1 to 1.5-inches of brown top soil, then 2 to 2.5-inches of black sand (Fill). Black sand has odor.				
08:40	PMW-12-2-3	Δ	0	15		<u>SILTY SAND WITH GRAVEL</u> , Grayish brown [10YR 5/2], 20-30% silt; 15-25% fine to coarse gravel (up to 6-inch in diameter cobbles); fine to medium grained sand.				
			1	22	BZ=0.2					
				37						
							SW-SM			
09:00	PMW-12-8.5-9.5	Δ	0	28	BZ=0.5	<u>SAND WITH SILT AND GRAVEL</u> , Grayish brown [10YR 5/2], 5-10% silt; 10-20% fine gravel (subangular); fine to coarse grained sand; moderately well sorted to poorly sorted; moist.				
			0.5	30						
			0.5	32						
09:10	PMW-12-9.5-10.5	Δ	0.8	30						
				50						
			0.8	25						
				50						



**EKI** Erler &  
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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-12	
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES		USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)						
						42	with common iron oxidation stains and common white powdery material that crumbles easily and does not react with acid on edges of gravel; gravel appears to be weathered.	SP			
						44	SAND, Brown [10YR 4/3]; 0-5% silt; medium to coarse grained sand. (Continued)				
			0.3	50(4)							
			0.5	23							
			0.5	28							
					BZ=0.2	46	SANDY SILT, Dark yellowish brown [10YR 4/4]; 10-20% fine grained sand; non-plastic; moist.	ML			
							SAND, Brown [10YR 4/3]; 0-5% silt; medium to coarse grained sand.	SP			
						48					
						50	As above.				
			0.5	21							
			0.4	50(2)							
			0.1								
						52					
						54					
			0.5	34			As above; sand is coarser (10,80,10); 0-5% fine gravel; increasing moisture; moist to wet in shoe of sampler.				
			0.5	50		56					
						58					
						60	As above; wet.				
			0.5								
			0.3								
						62					
						64					
			0.5	13							
			0.5	18							
			0.5	20		66					

6/24/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-12	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmw)	DEPTH (feet)					
						68	SAND, Brown [10YR 4/3]; 0-5% silt; medium to coarse grained sand. (Continued)	SP			
			0.5	15		70	As above; sand becoming finer; few gravels.				
			0.5	24							
			0.5	30							
						72	As above; mostly fine grained sand; 5-10% silt; no gravel.				
						74					
			0.5	11			As above; mostly medium grained sand; few fine gravels; 0-5% silt.				
			0.5	16		76	Slough at bottom of borehole.				
							Total Depth = 76 feet.				
						78					
						80					
						82					
						84					
						86					
						88					
						90					
						92					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - North of Building J			BOREHOLE / WELL NAME PMW-13		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/11/02	DATE COMPLETED 7/12/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 2.00	FROM (feet) 0.9	TO 65.0	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 86.5
PERFORATED CASING Sch 40 PVC with 0.03-inch slots	DIAMETER (inches) 2.00	FROM (feet) 65.0	TO 85.0	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.5	TO 61.0	TOP OF CASING 1030.46	GROUND SURFACE 1031.34
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 61.0	TO 63.0	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet) 63.0	TO 85.0	CHECKED BY Earl James, RG #4544	

**REMARKS** Four soil vapor monitoring zones were built within the seal of this well at 15, 30, 45, and 60 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
13:20	PMW-13-2-3		0.1	14	BZ=0	2	SM		
			0.4	20					
			0.4	22					
			0.5	30					
			0.1	50					
13:25	PMW-13-7.5-8.5		0.3	34	BZ=0	4	SW-SM		
			1	50					
			0.1	24					
13:30	PMW-13-9-10		0.9	50	BZ=0	10			
						12			
						14			
						16			
			0.5	50(6)					
			0.1						

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG GPJ EKL GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-13	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
14:00	PMW-13-30-31		0.5	50(6)	S=15	20	<u>SAND WITH SILT AND GRAVEL</u> . Dark brown [10YR 3/3]; 5-15% silt; 10-20% fine to coarse gravel and freshly broken gravel fragments. As above; broken gravel fragments that crumble easily with common iron oxidation stains; gravel appears to be weathered.	SW-SM			
			0.2			22		SW-SM			
				24							
			0.3	20		26	As above; one large, greenish black, dense angular gravel clast (1.5-inches in diameter).				
			0.5	50		28					
						30	As above.				
			0.8	20	32						
				50	34						
			0.2	27	S=7.0	36	As above; large gravel fragments to 1.5-inches in diameter; gravel appears weathered.				
			0.5	50		38					
				BZ=0	40	As above.					
0.3	31	42									
0.5	50	44									
			0.5	35		46	As above; abundant freshly broken gravel fragments that crumble easily with common iron oxidation stains and white powdery material that crumbles easily and does not react with acid on edges of gravel; gravel appears to be				
0.5	50										

BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log



**Erler &  
Kalinowski,  
Inc.**

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-13		
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION		
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)						
14:40	PMW-13-50-51	■	0.5	33				SW-SM				
			0.2	50								
		I	0.1	50								Poor recovery because gravel is plugging liners.
			0	50								
		■	0.5	50								As above; rock fragments to 1.5-inches in diameter.
			0.1									
15:00	PMW-13-65-66	I	0.5	50				SW-SM				
		■	0.7	20								As above; dry to moist.
				50								
		I										
		■										
		I										
15:00	PMW-13-65-66	■	0.7	20				SW-SM				
				50								
		I										As above, moist.
		■										
15:00	PMW-13-65-66	I						SM				
		■										
		I										
15:00	PMW-13-65-66	■						SW				
		I										
		■										



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-13	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		I	0.5	50		76	SAND, Brown (10YR 4/3); 5-10% silt; 5-10% fine gravel; sand (40,40,20); few coarse gravels; wet. (Continued)	SW			
		I	0.5	18		78					
		I	0.5	29		80	As above; sand becoming finer (70,20,10).				
		I	0.5	50		82					
		I	0.5	17		84	As above; sand as at 73 feet bgs; increasing silt to 10-15%.				
		I	0.5	33		86	Slough at bottom of borehole.				
		I	0.5	50		86	Total Depth = 86.5 feet.				
						88					
						90					
						92					
						94					
						96					
						98					
						100					
						102					
						104					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A			BOREHOLE / WELL NAME <b>PMW-14</b>		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME <b>Price Pfister</b>		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER <b>A20034.03 Task 1</b>		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 9/26/02	DATE COMPLETED 9/26/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.4	TO 65.0	BOREHOLE DIAM (inches) 12.0	TOTAL DEPTH (feet) 98
PERFORATED CASING Sch 40 PVC with 0.03-inch slots	DIAMETER (inches) 4.00	FROM (feet) 65.0	TO 95.0	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 1.0	TO 11.0	TOP OF CASING 1035.42	GROUND SURFACE 1035.86
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 11.0	TO 63.5	LOGGED BY Britt von Thaden	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet) 63.5	TO 95.5	CHECKED BY Earl James, RG #4544	

**REMARKS** Four soil vapor monitoring zones were built within the seal of this well at 15, 30, 45, and 59.5 ft bgs. Each zone consists of the following: a 6-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one-foot of #3 sand above and below the implant; one foot of #60 sand above the #3 sand; and two ft of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
07:40	PMW14-1.5-2	⊥	0.1 0.5 0.5	11 27 32	S=54	2	SP		
						Concrete, 4-inches.			
07:50	PMW14-5-5.5	⊥	0.5	50(6)	S=105	4	SW		
						SAND, Dark yellowish brown [10YR 4/6], 80-90% sand (fn: 80, md: 20, cs: 0), minor coarse sand, 10-15% fine to coarse gravel, <5% fines, well sorted, dry to moist.			
						As above.			
						Increase in gravel in drill cuttings.			
08:00	PMW14-10-10.5	⊥	0.5 0.2	60(6) 50(6)	S=230	10			
08:05						SAND WITH GRAVEL, Dark grayish brown [10YR 4/2], gravel increases to 25-35% up to 2-3-inches, dry to moist.			
08:12	PMW14-11.5-12	⊥	0.5	75(6)		12			
08:27		⊥	0	60(6)		14			
						No recovery due to plugged shoe with rock; rocks up to 4-inches observed in drill cuttings.			
						16			



# Borehole & Well Construction Log

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/1/102

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-14	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:38	PMW14-19-19.5	Δ	0.4	50(6)	BZ=0	20	<p><u>SAND WITH GRAVEL</u>. Dark grayish brown [10YR 4/2], gravel increases to 25-35% up to 2-3-inches, dry to moist. (Continued)</p> <p>Slightly darker soil cuttings, possible chemical odor, odor noticed while drilling.</p>	SW			
						22					
08:54	PMW14-24.5-25	Δ	0.2	60		24					
08:57	PMW14-26-26.5	Δ	0.4	72		26					
			0	80			<p>Color change to dark greenish gray [5GY 4/1], 60-70% sand (fn: 60, md: 30, cs: 10), 30-40% fine to coarse gravel (granitic, mafic, and pegmatitic gravels), &lt;5% fines, moderately well sorted, dense, moist.</p>				
			0.4	60		28					
			0.5	85		30					
09:18		Δ	0	46	S=146	32					
			0	62			<p><u>SAND WITH GRAVEL</u>. Grayish brown [10YR 5/2], 70-80% sand (fn: 60, md: 20, cs: 20), 20-30% fine to coarse gravel, &lt;5% fines, dense, moist; rock plugged shoe, poor recovery.</p> <p>Drilling slows; coarse gravels.</p>	SW			
			0.4	76		34					
09:35		Δ	0	46		36					
			0	62		38					
			0.3	35	S=55	40	<p>High blow counts, drive first 6-inches and get count, then drill with sampler ahead of auger to try to obtain sample; limited success by just driving sampler.</p> <p>As above.</p>				
09:45	PMW14-39.5-40	Δ	0	50		42					
			0.5	50		44					
			0	35		46					
09:58	PMW14-45-45.5	Δ	0.3	35	S=55	40	<p>As above; slight color change to dark yellowish brown [10YR 4/6], dry to moist.</p>				
			0.5	50	S=47	42					
			0	35		44					



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-14	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
10:08			0.4 0 0	60(6)		48	SAND WITH GRAVEL. Grayish brown [10YR 5/2], 70-80% sand (fn: 60, md: 20, cs: 20), 20-30% fine to coarse gravel, <5% fines, dense, moist; rock plugged shoe, poor recovery. (Continued)	SW			
						50	As above; rock plugged sampler.				
						52					
			0.3 0 0	72(6)		54	As above; rock plugged sampler.				
						56					
						58					
10:30	PMW14-60-60.5		0.3 0.5 0.5		S=58 BZ=0	60	Color change to dark grayish brown [10YR 4/2], 70-80% sand (fn: 20, md: 50, cs: 30), 20-30% fine to coarse gravel, dense, moist.				
						62					
10:40			0 0.4 0.5			64	As above.				
						66					
						68					
			0 0.3 0.5			70	As above; moist.				
						72	Hammer wet when removed from borehole between interval 70-75 ft bgs. 9/26/02				
						74	As above; overall grain size slightly finer, wet.				

BOREHOLE AND WELL CONSTRUCTION PF-12B.GPJ, EKJ.GDT, 11/1/02





Erler &  
Kalinowski,  
Inc.

# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-14	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
11:35			0.4 0.5 0.5			76	SAND WITH GRAVEL. Dark grayish brown [10YR 4/6]. 70-80% sand (fn: 20, md: 50, cs: 30), 20-30% fine to coarse gravel, dense, wet.	SW			
						78					
						80					
						82					
						84					
11:43			0.4 0.5 0.5			86	Color change to dark grayish brown [10YR 4/2], more mafic fragments resulting in darker color, grain size increases (mostly medium grain size), dense, wet.				
						88					
						90					
						92					
						94					
11:59			0.4 0.5 0.5			96	Slightly finer grained in sampler shoe, localized finer layer since coarser sand was present below.				
						98					
						100					
						102					
						104					
							98	Total Depth = 98 feet.			

BOREHOLE AND WELL CONSTRUCTION PF12B.GPJ EKL.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION			13500 Paxton St, Pacoima, CA - Southeastern Corner of Louvre St. Parking Lot			BOREHOLE / WELL NAME		PMW-15								
DRILLING COMPANY			West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME		Price Pfister								
DRILLING METHOD			Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER		A20034.03, Task 1								
CONDUCTOR CASING		NA	DIAMETER (inches)			FROM (feet)		TO	DATE STARTED	7/15/02	DATE COMPLETED		7/15/02			
BLANK CASING		Sch 40 PVC	DIAMETER (inches)		2.00	FROM (feet)		0.5	TO	70.0	BOREHOLE DIAM (inches)		10.0	TOTAL DEPTH (feet)		91.5
PERFORATED CASING		Sch 40 PVC with 0.03-inch slots	DIAMETER (inches)		2.00	FROM (feet)		70.0	TO	90.0	DATUM		NAD 1927			
GROUT		Medium Bentonite Chips (hydrated in place)				FROM (feet)		3.0	TO	66.0	TOP OF CASING		1037.49	GROUND SURFACE		1038.58
SEAL		Medium Bentonite Chips (hydrated in place)				FROM (feet)		66.0	TO	68.0	LOGGED BY		Logan Hansen			
FILTER PACK		#3 Sand (0.85 mm - 2.36 mm)				FROM (feet)		68.0	TO	90.0	CHECKED BY		Earl James, RG #4544			

**REMARKS** Four soil vapor monitoring zones were built within the seal of this well at 20, 35, 50, and 65 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
13:05	PMW-15-2-3		0.1	19		2	Asphalt, 3-inches.	SM		
			0.5	22			SILTY SAND. Very dark brown [10YR 2/2]; few freshly broken gravel fragments.			
			0.5	45			SAND WITH SILT AND GRAVEL. Light brownish gray [10YR 6/2]; 20-30% fine to coarse gravel and freshly broken gravel fragments; 5-15% silt; sand (70, 15, 15); dry.			
			0.8	37			As above; gravels to 4-inches in diameter in cuttings.			
						4				
						6				
13:15	PMW-15-7-8		0.5	50(6)	BZ=0	8	Color change to very dark grayish brown [10YR 3/2].	SW-SM		
	PMW-15-7-8		0.5	50(6)						
13:30	PMW-15-9-11		0.4			10				
13:30	PMW-15-9-11		1	50(6)		12	As above; broken gravel fragments that crumble easily with common iron oxidation stains; gravel appears to be weathered.			
						14				
						16	Color change to dark grayish brown [10YR 4/2]; 10-20% fine gravel; 5-15% fines; sand (40, 40, 10); dry.			

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/11/02





# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-15	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:50	PMW-15-30-31		0.5	36	S=12	20	SAND WITH SILT AND GRAVEL, Light brownish gray [10YR 6/2]; 20-30% fine to coarse gravel and freshly broken gravel fragments; 5-15% silt; sand (70,15,15); dry. (Continued)	SW-SM			
			0.5	50			As above.				
			0.1			22					
						24					
			0.5	50(6)			As above.				
			0.1			26					
						28					
			0.7	50(6)		30	As above.				
						32					
						34					
			0.3	34			As above; gravel caught in liner (1.5-inches in diameter); gravel appears weathered.				
			0.5	50		36					
						38					
			0.5	50(6)		40	As above.				
			0.1			42					
						44					
						46	As above; gravel to 1.5-inches in diameter.				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-15	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
14:20	PMW-15-60-61	I	0.3	50(6)		48	SAND WITH SILT AND GRAVEL. Light brownish gray [10YR 6/2]; 20-30% fine to coarse gravel; 5-15% silt; sand (70,15,15); dry.	SW-SM			
						50	As above.				
						52					
						54					
						56	As above.				
						58					
						60	As above.				
						62					
						64					
						66	As above; <5% fines; moist.				
68											
70	As above; moist to wet; gravel appears weathered.										
72											
			0.5	50(6)		74	SAND. Dark grayish brown [10YR 4/2]; few fine gravels; sand (30,60,10); moist to wet.	SP			
			0.5	22			As above; wet.				

BOREHOLE AND WELL CONSTRUCTION PRICELOH GPJ EKI GDT 11/11/02

7/15/02





Erler &  
Kalinowski,  
Inc.

# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PMW-15	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
			0.5 0.5	26 40		76	<u>SILTY SAND</u> , Dark yellowish brown [10YR 4/4]; 30-40% silt; fine grained sand; moist to wet.	SM			
						78					
						80	<u>SAND</u> , Dark yellowish brown [10YR 4/4]; few fine gravels; increasing silt; sand (30,60,10); wet.	SW			
			0.5 0.5 0.5	31 33 40		82	<u>SILTY SAND</u> , Dark yellowish brown [10YR 4/6]; common iron oxidation stains; non-plastic; firm.	SM			
						84	<u>SAND</u> , Dark yellowish brown [10YR 4/6]; few fine gravels; sand (30,60,10); wet.	SW			
			0.5 0.5 0.5	27 30 39		86	As above; sand becoming finer; few fine gravels.				
						88					
			0.5 0.5 0.5	22 50		90	<u>SAND</u> , Dark yellowish brown [10YR 4/6]; sand (35,60,5); wet.	SW			
						92	Slough at bottom of borehole. Total Depth = 91.5 feet.				
						94					
						96					
						98					
						100					
						102					
						104					

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/1/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A			BOREHOLE / WELL NAME <b>PMW-16</b>		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME <b>Price Pfister</b>		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER <b>A20034.03 Task 1</b>		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 9/25/02	DATE COMPLETED 9/25/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 6.00	FROM (feet) 0.5	TO 44.5	BOREHOLE DIAM (inches) 12.0	TOTAL DEPTH (feet) 76
PERFORATED CASING Stainless Steel w/ 0.03-inch slots	DIAMETER (inches) 6.00	FROM (feet) 44.5	TO 74.5	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 1.0	TO 40.0	TOP OF CASING 1035.30	GROUND SURFACE 1035.83
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 40.0	TO 42.0	LOGGED BY Jonathan Boxerman	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 42.0	TO 74.5	CHECKED BY Earl James, RG #4544	

REMARKS Schedule 80 PVC from 0-4.5 ft bgs.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OV/M (ppmv)	DEPTH (feet)				
07:01	PMW16-1-1.5	⌵	0.5	16			Concrete, 4-inches.	SP		
07:04	PMW16-1.5-2	⌵	0.5	18	BZ=0.4		SAND, Dark olive brown [2.5Y 3/3], sand [fn: 50, md: 40, cs: 10], <5% fines, dry to slightly moist, slight chemical odor noticed.			
		⌵	0.4	30	S=299	2				
		⌵	0.2	50(6)			Foot-long boulder removed from borehole.			
		⌵				4	Gravel content increasing.	SW		
		⌵	0.5	50(6)	BZ=6.9		SAND WITH GRAVEL, Brown [10YR 4/3], sand [fn: 30, md: 50, cs: 20], 20-40% gravel, gravel [fn: 30, md: 10, cs: 60], coarse gravel to 2-inches diameter, strong chemical odor noticed, dry.			
		⌵	0.5		S=696	6				
		⌵				8				
07:36	PMW16-9.5-10	⌵	0.3	50(6)	BZ=0.3	10	Gravel size increasing, 20% to 3-inches diameter.			
07:41	PMW16-10-11	⌵	0.5	27	S=452					
07:50	PMW16-11-11.5	⌵	0.5	50(6)		12				
		⌵	0.5			14				
		⌵	0.5	50(6)		16	Color change to olive brown [2.5Y 4/4], sand [fn: 30, md: 30, cs: 40], gravel mostly fine [fn: 80, md: 0, cs: 20], gravel <1.5-inches diameter, dry.			
		⌵	0.3		S=554	18				
08:10	PMW16-	⌵	0.5	30	BZ=1.9					



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-16	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
	19.5-20	I	0.3	50(6)		22	Fine sand content decreasing [fn: <5%, md: 70, cs: 30], gravel content 20-40%, gravel mostly fine grained, dry to slightly moist, odor noticed. <u>SAND WITH GRAVEL</u> , Brown [10YR 4/3], sand [fn: 30, md: 50, cs: 20], 20-40% gravel, gravel [fn: 30, md: 10, cs: 60], coarse gravel to 2-inches diameter, strong chemical odor noticed, dry. (Continued)	SW			
						24					
08:22	PMW16-24.5-25	X	0.5 0.1	60(6)	BZ=0.5	26	As above.				
08:26	PMW16-25.5-26.5	■	0.5 0.5	50(6)	S=406	28					
						30					
08:40	PMW16-29.5-30	X	0.5	60(6)	BZ=0.5 S=381	32	As above.				
						34					
08:56	PMW16-34.5-35	X	0.5	60(6)	S=439	36	Color change to dark grayish brown [10YR 4/2], 80% coarse sand to fine gravel, slightly moist.				
						38					
09:06	PMW16-39.5-40	X	0.5	60(6)		40	As above.				
						42	Color change to olive brown [2.5Y 4/4].				
						44					
09:22	PMW16-45-45.5	X	0.5	60(6)	BZ=2.0	46	As above.				
09:27	PMW16-45.5-46.5	■	0.5 0.5	20 50(6)	S=490	48					
						50					
09:36	PMW16-49.5-50	X	0.5 0.5	38 50(6)	BZ=2.1 S=579		Slight color change to olive brown [2.5Y 4/3], sand [fn: 20, md: 60, cs: 20], 30-40% gravel, 5% fines, no to low plasticity, moist to very moist.				





**Erler &  
Kalinowski,  
Inc.**

# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-16	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						54	<u>SAND WITH GRAVEL</u> , Olive brown [2.5Y 4/3], sand (fn: 20, md: 60, cs: 20), 30-40% gravel, 5% fines, no to low plasticity, moist to very moist.	SW			
			0.5 0.5	50(6)		56	Color change to olive gray [5Y 4/2], sand (fn: 10, md: 55, cs: 35), 30-40% gravel, 75% of gravel 0.5 to 1-inch diameter, soil has shiny appearance, sheen on water noticed when soil dissolved in water, moist to wet, slight odor noticed. 9/25/02				
			0.5 0.5 0.5	40 50(6)		60	Color change to dark olive brown [2.5Y 3/3], coarse sand component increasing (fn: 20, md: 30, cs: 50), sheen noticed on sample barrel, wet.				
			0.5 0.5 0.5	35 50(6)		64	As above; soil has luster and glistening appearance.				
			0.5 0.5	22 50(6)		70	As above; wet.				
			0.5 0.5 0.5	50(6)		74	As above; wet.				
						76	Slough at bottom of borehole. Total Depth = 76 feet.				
						78					
						80					
						82					

BOREHOLE AND WELL CONSTRUCTION PF12B.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A			BOREHOLE / WELL NAME PMW-17		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 9/30/02	DATE COMPLETED 9/30/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 6.00	FROM (feet) 0.7	TO 45.0	BOREHOLE DIAM (inches) 15.0	TOTAL DEPTH (feet) 78.5
PERFORATED CASING Stainless Steel w/ 0.03-inch slots	DIAMETER (inches) 6.00	FROM (feet) 45.0	TO 75.0	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 1.0	TO 41.0	TOP OF CASING 1035.22	GROUND SURFACE 1035.87
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 41.0	TO 44.0	LOGGED BY Britt von Thaden	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 44.0	TO 75.0	CHECKED BY Earl James, RG #4544	

**REMARKS** Pilot hole completed with 8.75-inch augers; overdrilled with 15-inch augers. Three soil vapor monitoring zones were built within the seal of this well at 9.5, 24.5, and 39.5 ft bgs. Each zone consists of the following: a 6-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one-foot of #3 sand above and below the implant; one-foot of #60 sand above the #3 sand; and two ft of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
08:15	PMW17-4.5-5	I	0.2 0.5	28 50		Concrete, 4-inches.	GP		
						GRAVEL (FILL), 2-inch concrete layer at 2 ft bgs; gravel fill (GP) inside former concrete lined trench.			
						SAND WITH GRAVEL, Dark yellowish brown [10YR 4/4], 60-70% sand, sand [fn: 70, md: 20, cs: 10], 30-40% fine gravel, dense, dry.			
08:20	PMW17-9.5-10	I	0.4 0.5 0	86		Color change to dark grayish brown [10YR 4/2].	SP		
08:25		I	0 0.3	77		As above.			
		I	0 0.1	84		Increase in gravel, more rock in cuttings.			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-17	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:34	PMW17-24.5-25		0	71		22	SAND WITH GRAVEL. Dark yellowish brown [10YR 4/4], 60-70% sand, sand [fn: 70, md: 20, cs: 10], 30-40% fine gravel, dense, dry. (Continued) Rock plugged sampler, limited sample recovery.	SP			
			0.4			24				Color change to dark yellowish brown [10YR 4/4], 50-60% sand, fine sand component increasing [fn: 60, md: 25, cs: 15], 40-50% fine to coarse gravel, <5% fines, dense, dry to moist.	
						26					
08:42			0	82		28	Color change to dark grayish brown [10YR 4/2].				
			0.3			30					
						32					
08:42			0.3	62		34	As above, gravel mostly subangular to subrounded; rare rounded gravel.				
			0.5			36					
						38					
08:48			0	71		40	As above.				
			0.4			42					
						44					
08:52			0			46	Rock plugged sampler.				
			0.1			48					
						50					
08:55	PMW17-47.5-48		0.2	38		48	Color change to dark yellowish brown [10YR 4/4], 60-70% sand, 30-40% fine to coarse gravel, <5% fines, moist. Color change to dark olive gray [5Y 3/2], chemical odor begins.				
			0.5			48					
			0			52					
09:02			0.3	38		50	As above.				
			0.5			46					

BOREHOLE AND WELL CONSTRUCTION PFJZB GPJ EKJ GDT 11/11/02





# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-17	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:04		I	0 0.4	74		54	<p><u>SAND WITH GRAVEL</u>. Dark olive gray [5Y 3/2], 60-70% sand, 30-40% fine to coarse gravel, &lt;5% fines, moist.</p> <p>Tip of sampler wet upon removal from augers.</p> <p>9/30/02 ▽</p>	SP			
09:12		I	0.2 0.5	37 51		60	<p><u>SAND WITH GRAVEL</u>. Dark olive gray [5Y 3/2], 70-80% sand [fn: 10, md: 70, cs: 20], 20-30% gravel [fn: 80, cs: 20], no fines, very dense, oily appearance, wet.</p>	SP			
09:18		I	0.3 0.5	28 50		66	As above.				
09:24		I	0.4 0.5	37 51		70	As above; slight color change to very dark gray [5Y 3/1].				
09:31		I	0.2 0.5	41 52		74	As above.				
09:39		I	0.4	37		78	As above.				
						80	Slough at bottom of borehole.				
						82	Total Depth = 78.5 feet.				

BOREHOLE AND WELL CONSTRUCTION PF-J2B GPJ EKI.GDT 11/11/02





Erler &  
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Inc.

# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A			BOREHOLE / WELL NAME PMW-18		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 9/24/02	DATE COMPLETED 9/24/02
BLANK CASING Sch 80 PVC	DIAMETER (inches) 6.00	FROM (feet) 0.5	TO 40.0	BOREHOLE DIAM (inches) 12.0	TOTAL DEPTH (feet) 70.5
PERFORATED CASING Stainless Steel w/ 0.03-inch slots	DIAMETER (inches) 6.00	FROM (feet) 40.0	TO 70.0	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 1.0	TO 35.5	TOP OF CASING 1035.32	GROUND SURFACE 1035.86
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 35.5	TO 37.0	LOGGED BY Jonathan Boxerman	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 37.0	TO 70.0	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
08:47	PMW18-4-4.5	I	0.5	29	S=287	Concrete, 3-feet.			
						GRAVEL WITH SAND, gravel (angular to subangular) to 3-inches diameter, dry to moist.	GW		
						SAND WITH GRAVEL, Dark grayish brown [10YR 4/2], 40-50% sand [fin: 20, md: 50, cs: 30], 40-50% gravel, coarse gravel, no fines, dry to moist, no odor noticed.	SW		
						Gravel content decreases to 30-40%, moist, strong odor noticed.			
		I	0.2	50(6)	S=343	Color change to dark olive gray [5Y 3/2].			
						Poor recovery due to increased gravel content; sample liner contained pulverized rock, no sand in liner as seen in drill cuttings.			

BOREHOLE AND WELL CONSTRUCTION PFJZB GPJ EKI.GDT 11/11/02





# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-18						
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION						
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)										
10:55	PMW18-20.5-21		0.1	80(6)	S=311	20	<p><u>SAND WITH GRAVEL</u>. Dark olive gray [5Y 3/2]; gravel content decreases to 20-30%, gravel fine to coarse, moist, strong chemical odor noticed.</p> <p>No color change, sand has greenish appearance, medium to coarse grained sand, slightly more poorly sorted sand, strong chemical odor noticed, moist.</p>	SW								
			0.5			22										
			0.5			24										
11:17	PMW18-27.5-28		0	80(6)		26	Sampler shoe plugged by rock.									
			0			28										
			0.3			30										
11:24	PMW18-29.5-30		0.4	80(6)	S=251	32	Gravel content increases to 40%, increased coarse gravel.									
11:40	PMW18-34.5-35		0.5	80(6)	S=47.3	34										
						36										
11:58	PMW18-39.5-40		0.5	80(6)	S=8.7	38	Color change to olive [5Y 4/3], sand appears not as greenish, gravel content decreases to 20-30%, decreased coarse gravel, fine sand increases to 30%.									
						40										
						42										
12:18	PMW18-44.5-45		0.4	80(6)	S=199	44	As above; dry to moist.									
						12:26					PMW18-45-45.5		0.5	80(6)	S=68.6	46
																Gravel content decreases to 10-20%, 20-30% gravel fine grained, sand [fn: 10, md: 45, cs: 45].



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-18	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:12	PMW18-50-50.5	Δ	0.3 0.5	25 50(6)		48	SAND WITH GRAVEL, Dark olive gray [5Y 3/2], gravel content decreases to 20-30%, gravel fine to coarse, moist, strong chemical odor noticed. (Continued)	SW			
						50	No color change, fine grained sand component increases to 30%, fine gravel, <5% coarse gravel, <5% fines.	SP			
						52					
13:32	PMW18-54.5-55	Δ	0.5 0.5	34 50(6)		54					
						56	Color change to very dark grayish brown [2.5Y 3/2], coarse grained sand component increasing, 25% fine grained gravel.				
						58					
			0.5 0.5	38 50(6)		60	70% coarse sand, wet.				
						62					
			0.5 0.5 0.5			64					
						66					
			0.5 0.5 0.5			68					
						70	Sand [fn:15, md: 30, cs: 55], 10-20% fine gravel.				
							Total Depth = 70.5 feet.				
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION		Filmore Street and Sutter Avenue, Pacoima, CA		BOREHOLE / WELL NAME		PMW-19	
DRILLING COMPANY		West Hazmat Drilling, C-57 Lic. # 554979		PROJECT NAME		Price Pfister	
DRILLING METHOD		Hollow-Stem Auger (CME 95 Rig)		PROJECT NUMBER		A20034.03 Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)		FROM (feet)	TO	DATE STARTED	DATE COMPLETED
BLANK CASING	Sch 40 PVC	DIAMETER (inches)	4.00	FROM (feet)	0.5 TO 55.0	BOREHOLE DIAM (inches)	TOTAL DEPTH (feet)
PERFORATED CASING	Sch 40 PVC with 0.03-inch slots	DIAMETER (inches)	4.00	FROM (feet)	55.0 TO 85.0	DATUM	NAD 1927
GROUT	High-percent-solids Bentonite (hydrated in drum)		FROM (feet)	2.0 TO 50.0	TOP OF CASING	1026.59	GROUND SURFACE 1026.98
SEAL	Medium Bentonite Chips (hydrated in place)		FROM (feet)	50.0 TO 53.0	LOGGED BY Jonathan Boxerman		
FILTER PACK	#3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	53.0 TO 85.0	CHECKED BY Earl James, RG #4544		

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
					BZ=0.4	2	Asphalt, 4-inches Baselrock, 6-inches. Few cobbles up to 8-inches in diameter. SAND WITH GRAVEL. Olive brown [2.5Y 4/3], sand (50, 35, 15), 30% fine to coarse gravel up to 2-inches diameter (subangular to subrounded), <5% fines, loose, dry to moist.	SW		
					BZ=0.1	8	As above; no color change observed, increase in gravel to 40-50%, gravels up to 3-inches diameter in 1 to 2-foot zone.			
		I	0.2	50/6		10				
						12				
						14				
						16				

BOREHOLE AND WELL CONSTRUCTION PF1512ZB.GPJ ENLGDT 1/3/03



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-19	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		I	0	50/6	BZ=0.1	20	SAND WITH GRAVEL. Olive brown [2.5Y 4/3], sand (50, 35, 15), 30% fine to coarse gravel up to 2-inches diameter (subangular to subrounded), <5% fines, loose, dry to moist. (Continued)	SW			
		I	0.4	50/6	BZ=0.1	30	As above; medium grained sand component increasing, sand (25, 50, 25).				
		I	0.3	50/6		40	As above; 40-45% gravel up to 2-inches diameter (subangular).				
		I				42	As above; fine grained sand component increasing, medium grained sand component decreasing, sand (50, 30, 20), 25-30% fine gravel up to 1-inch diameter.				
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PFISTER/IZB.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-19	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
					BZ=0.1	48	0 As above; 1-foot zone of rock, difficult drilling, gravels in cuttings up to 2-inches diameter.	0			
		I	0.3	50/6		50	As above; sand (30, 50, 20), dry.				
						52					
						54					
						56					
						58					
		I	0.4	50/6	BZ=0.1	60	SAND WITH SILT AND GRAVEL, Dark yellowish brown (10YR 4/4), sand (10, 70, 20), 30% fine gravel to 1-inches diameter, 5-15% fines, loose, low plasticity, dry to moist.	SW-SM			
						62					
						64					
		I	0.3	50/6		66	As above; wet.				
					BZ=0.1	68					
						70	As above; gravel increases up to 0.5-inches diameter (subrounded).				
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PF1512JB.GPJ EN1.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-19	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
					BZ=0.1	76	<p><b>SAND WITH SILT AND GRAVEL.</b> Dark yellowish brown [10YR 4/4], sand (10, 70, 20), 30% fine gravel to 1-inches diameter, 5-15% fines, loose, low plasticity, dry to moist. (Continued)</p> <p>As above.</p>	SW-SM			
						78					
						80					
						82					
						84					
							Total Depth = 85 feet.				
						86					
						88					
						90					
						92					
						94					
						96					
						98					
						100					
						102					
						104					

BOREHOLE AND WELL CONSTRUCTION PF12128.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION Filmore Street and Ralston Avenue, Pacoima, CA			BOREHOLE / WELL NAME PMW-20		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 11/18/02	DATE COMPLETED 11/18/02
BLANK CASING Sch 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5	TO 55.0	BOREHOLE DIAM (inches) 11.3	TOTAL DEPTH (feet) 90
PERFORATED CASING Sch 40 PVC with 0.03-inch slots	DIAMETER (inches) 4.00	FROM (feet) 55.0	TO 85.0	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 1.0	TO 50.0	TOP OF CASING 1031.68	GROUND SURFACE 1032.38
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 50.0	TO 53.0	LOGGED BY Jonathan Boxerman	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet) 90.0	TO 53.0	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
					BZ=0.1	0	Asphalt, 4-inches. Baselrock, 6-inches. Few cobbles up to 8-inches in diameter.	SW		
						2	SAND WITH GRAVEL. Dark grayish brown [10YR 4/2], sand (40, 35, 25), 45% fine to coarse gravel to 3-inches diameter, fines <5%, moist.			
						4				
		I	0	50/6		6	As above: fine gravel increases, coarse gravel component decreases, no recovery because shoe was plugged by rock.			
						8				
						10	SAND WITH SILT AND GRAVEL. Dark yellowish brown [10YR 4/4], sand (60, 20, 20), 30% fine gravel, 5-15% fines, loose, dry to moist.	SW-SM		
		I	0	50/6		12	As above; no recovery because shoe was plugged by rock.			
						14				
						16	SAND WITH GRAVEL. Dark grayish brown [10YR 4/2], sand (10, 65, 25), 25% fine gravel to 3-inches diameter, <5% fines, dry to slightly moist.	SW		

BOREHOLE AND WELL CONSTRUCTION PF151JZB GPJ ENL.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-20	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
		I	0	50/6		20	<p><b>SAND WITH GRAVEL.</b> Dark grayish brown [10YR 4/2], sand (10, 65, 25), 25% fine gravel to 3-inches diameter, &lt;5% fines, dry to slightly moist. (Continued)</p> <p>As above; no recovery because shoe was plugged by rock, fine grained sand increases to 50% of total sand fraction observed in drill cuttings.</p>	SW			
		I	0.1	50/6		22					
		I	0.1	50/6		24					
		I	0.1	50/6		26					
		I	0.1	50/6		28	<p>As above; no recovery because shoe was plugged by granitic rock.</p>				
		I	0.1	50/6		30					
		I	0.1	50/6		32					
		I	0.1	50/6		34					
		I	0.1	50/6		36	<p>As above.</p>				
		I	0.1	50/6		38					
		I	0.1	50/6		40					
		I	0.1	50/6		42					
		I	0.1	50/6		44					
		I	0.1	50/6		46					

BOREHOLE AND WELL CONSTRUCTION PF1STJ2B.GPJ EKI.GDT 11/2003



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-20	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						0		0			
						48					
		I	0.2	50/6		50	As above; no recovery because shoe was plugged by rock, fine gravel decreases to 25%.				
						52					
						54	Slow drilling, augers bouncing on rocks.				
						56	<u>GRAVEL WITH SAND</u> , observed from drill cuttings, <15% sand, fine to coarse gravel (angular to subangular) appears freshly fractured.	GW			
						58	<u>SAND WITH SILT AND GRAVEL</u> , Dark yellowish brown [10YR 4/4], sand (60, 10, 10), 20% fine gravel, 5-15% fines, loose, no to low plasticity, dry to moist.	SW-SM			
		I	0.5 0.3	50/6		60					
						62					
						64	<u>SAND WITH GRAVEL</u> , Dark grayish brown [10YR 4/2], sand (10, 65, 25), 25% gravel up to 3-inches diameter, 25% fines, dry to slightly moist.	SW			
						66					
						68					
		I	0.5 0.4 0.1	50/6		70	As above; wet.				
						72					
						74					



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-20	
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION		
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)					DEPTH (feet)	
						76	SAND WITH GRAVEL. Dark grayish brown [10YR 4/2], sand (10, 65, 25). 25% gravel up to 3-inches diameter, <5% fines, dry to slightly moist. (Continued)	SW			
						78					
						80	SAND WITH SILT AND GRAVEL. Olive gray [5Y 4/2], sand (30, 30, 40), 25% fine gravel, 5-15% fines, poorly sorted, medium to high plasticity, moist.	SW-SM			
			0.5	50/6		82					
			0.3			84					
						86					
						88	Slough at bottom of borehole.				
						90	Total Depth = 90 feet.				
						92					
						94					
						96					
						98					
						100					
						102					
						104					

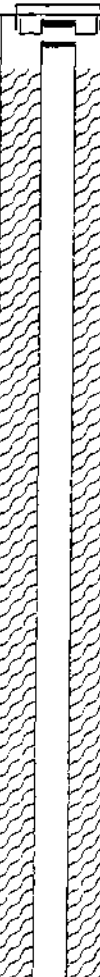
BOREHOLE AND WELL CONSTRUCTION PF151J2B.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA				BOREHOLE / WELL NAME PMW-21B	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet) TO	DATE STARTED 11/15/02	DATE COMPLETED 11/15/02
BLANK CASING	Sch 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5 TO 96.5	BOREHOLE DIAM (inches) 11.3	TOTAL DEPTH (feet) 110.5
PERFORATED CASING	Sch 40 PVC with 0.03-inch slots	DIAMETER (inches) 4.00	FROM (feet) 98.5 TO 108.5	DATUM NAD 1927	
GROUT	High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 1.0 TO 94.0	TOP OF CASING 1035.44	GROUND SURFACE 1035.95
SEAL	Sinclair High Yielding Bentonite (3/8") (hydrated in place)		FROM (feet) 94.0 TO 97.0	LOGGED BY Britt von Thaden	
FILTER PACK	#3 Sand (0.85 mm - 2.36 mm)		FROM (feet) 97.0 TO 108.5	CHECKED BY Earl James, RG #4544	

**REMARKS** This borehole was located adjacent to well MW-05. Please see log for well MW-05 for material descriptions and drilling remarks for subsurface conditions encountered to 75 feet below ground surface.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
						2	Please refer to log for well MW-05.			
						4				
						6				
						8				
						10				
						12				
						14				
						16				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-21B	
SAMPLES											
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	MATERIAL DESCRIPTION AND DRILLING NOTES					
DEPTH (feet)											
46											
44											
42											
40											
38											
36											
34											
32											
30											
28											
26											
24											
22											
20											
						USCS CODE					
						GRAPHIC LOG					
						WELL CONSTRUCTION					



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-21B	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
					S=42	48	<p>Apparent chemical odor noticed and greenish gray soil observed while drilling between 50 and 55 feet. OVM readings measured in the breathing zone fluctuated from 0.6 to 3.1 ppmv.</p> <p>11/15/02</p>				
						50					
						52					
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					
		I	0.5	50/6				SP			

BOREHOLE AND WELL CONSTRUCTION PF1STJZB GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-21B	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						76	SAND. Dark yellowish brown (10YR 4/4), 95-100% fine to coarse grained sand (15, 60, 25), <5% fine gravel, <5% fines, moderately well sorted, very dense, wet. (Continued)	SP			
						78					
				18		80	As above; coarse grained sand component increasing (15, 35, 50).				
				50/6		82					
						84					
				46	BZ=0.4 to 2.1	86	As above; fine grained sand component increasing (30, 50, 20).				
			0.5	50/6		88					
			0.5			90	As above.				
			0.5	33		92					
			0.5	50/6		94					
						96	As above; variable coarseness. coarser grained in uppermost 6-inches, then grades to finer at tip of sampler, <5% fines, wet.				
			0.5	38		98					
			0.5	50/6		100	As above; medium to coarse grained sand, <5% fines, wet.				
			0.5			102					
						104					

BOREHOLE AND WELL CONSTRUCTION PF151J2B.GPJ EK1.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-21B	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	Q/M (ppmv)	DEPTH (feet)					
		I	0.5	50/6		0	As above; medium to coarse grained sand (15, 60, 30).	SP			
						106					
						108					
						110	No recovery because of sand flowing into augers.				
							Total Depth = 110.5 feet.				
						112					
						114					
						116					
						118					
						120					
						122					
						124					
						126					
						128					
						130					
						132					

BOREHOLE AND WELL CONSTRUCTION PF12J2B.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Oil Staging Area				BOREHOLE / WELL NAME PMW-22		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING NA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 11/20/02	DATE COMPLETED 11/26/02
BLANK CASING Sch 40 PVC		DIAMETER (inches) 2.00	FROM (feet) 2.5	TO 50.0	BOREHOLE DIAM (inches) 9.0	TOTAL DEPTH (feet) 70
PERFORATED CASING Sch 40 PVC with 0.03-inch slots		DIAMETER (inches) 2.00	FROM (feet) 50.0	TO 70.0	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)			FROM (feet) 3.3	TO 44.5	TOP OF CASING 1040.92	GROUND SURFACE 1041.38
SEAL Medium Bentonite Chips (hydrated in place)			FROM (feet) 44.5	TO 47.5	LOGGED BY Jonathan Boxerman	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)			FROM (feet) 47.5	TO 70.0	CHECKED BY Earl James, RG #4544	
REMARKS Well PMW-22 is located within a sump approximately 3-feet 3-inches deep. The well was completed in a standpipe that extends approximately 2.5 feet feet above ground surface.						

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
					BZ=0.1	Concrete sump, 3-feet 3-inches deep.			
						2			
						4			
08:21	PMW22-4.5-5	Δ	0.5		S=2.2	SAND WITH GRAVEL, Brown [10YR 5/3], sand (20, 70, 10), 15% fine gravel up to 0.5-inch diameter (subrounded), <5% fines, loose, dry to moist, no chemical odor noticed; at approximately 5.5 feet below ground surface: soft Styrofoam-type lining seal about 1-mm thick.	FILL (SW)		
						6			
						8			
08:49	PMW22-9.5-10	Δ	0.4	50/6	S=64.9	SAND WITH GRAVEL, color change inferred from cuttings to dark grayish brown [10YR 4/2], sand (50, 25, 25), coarse sand to 0.2-inches, 20-30% fine gravel to 0.5-inches (subrounded), loose, dry to moist.	SW		
						10			
						12			
						14			
09:01	PMW22-14.5-15	Δ	0.5 0.2	50/6	S=237	SAND WITH SILT AND GRAVEL, Yellowish brown [10YR 5/4], sand (30, 40, 30), 30-40% gravel (subangular to subrounded), 10% fines, no plasticity, loose.	SW-SM		
						16			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-22	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:17	PMW22-19.5-20	▽	0.5 0.5	50/6	BZ=0.1 S=915	20	<u>SAND WITH SILT AND GRAVEL</u> , Yellowish brown [10YR 5/4], sand (30, 40, 30), 30-40% gravel (subangular to subrounded), 10% fines, no plasticity, loose. (Continued)  As above, strong chemical odor noticed from cuttings.	SW-SM			
						22					
09:24	PMW22-24.5-25	▽	0.5 0.2	50/6	S=257	24	<u>GRAVEL WITH SILT AND SAND</u> , Grayish brown [10YR 5/2], 30-40% sand (30, 40, 30), 10% fines, gravel well graded (subrounded to angular), loose to clumpy, dry, no chemical odor noticed; very slow drilling from 23 to 28 feet below ground surface due to very hard rock.	GW			
						26					
						28					
09:47	PMW22-29.5-30	▽	0.5 0.3	50/6	S=4.8	30	<u>SAND WITH GRAVEL</u> , Yellowish brown [10YR 5/4], sand (50, 30, 20), 30% fine gravel (angular to subrounded), <5% fines, loose, dry, no chemical odor noticed.	SW			
						32					
						34					
09:58	PMW22-34.5-35	▽	0.5 0.2	50/6	S=2.7	36	As above, moist to very moist.				
						38					
10:10	PMW22-39.5-40	▽	0.5 0.3	50/6	S=6.4	40	As above, moist, <5% fines.				
						42					
						44	As above, slight color change to brown [10YR 5/3].				
10:15	PMW22-44.5-45	▽	0.5 0.4	50/6	BZ=0.1 S=3.7	46					

BOREHOLE AND WELL CONSTRUCTION PF1STJZB.GPJ EKL.GDT 1/3/03



# Borehole & Well Construction Log



Erler &  
Kalinowski,  
Inc.

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-22	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
10:27	PMW22-49.5-50	⊗	0.5 0.2	50/6	S=1.1	48	SAND WITH GRAVEL, Yellowish brown [10YR 5/4], sand (50, 30, 20), 30% fine gravel (angular to subrounded), <5% fines, loose, dry, no chemical odor noticed. (Continued)	SW			
						50	As above, slight color change to dark yellowish brown [10YR 4/4], <5% fines.				
						52					
						54					
10:36	PMW22-54.5-55	⊗	0.5 0.4	30 50/6	S=2.4	54	As above.				
						56					
						58					
			0.5 0.5 0.5	50/6		60	As above, wet.				
						62					
						64					
			0.5 0.5 0.5	50/6	BZ=0.1	66	As above.				
						68					
						70	Total Depth = 70 feet.				
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PFISTER/PFJ EKL/GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Central Building P Area				BOREHOLE / WELL NAMEPMW-23		
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister		
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1		
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED11/21/02	DATE COMPLETED11/22/02
BLANK CASINGSch 40 PVC		DIAMETER (inches)2.00	FROM (feet)0.5	TO53.0	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)76
PERFORATED CASINGSch 40 PVC with 0.03-inch slots		DIAMETER (inches)2.00	FROM (feet)53.0	TO73.0	DATUMNAD 1927	
GROUTHigh-percent-solids Bentonite (hydrated in drum)			FROM (feet)0.5	TO47.5	TOP OF CASING1041.63	GROUND SURFACE1041.95
SEALMedium Bentonite Chips (hydrated in place)			FROM (feet)47.5	TO50.0	LOGGED BYJonathan Boxerman	
FILTER PACK#3 Sand (0.85 mm - 2.36 mm)			FROM (feet)50.0	TO73.0	CHECKED BYEarl James, RG #4544	

**REMARKS** This borehole was located adjacent to wells SVMW-202 and PSVE-3. Please see the logs for these wells for material descriptions and drilling remarks for subsurface conditions encountered to 60 feet below ground surface.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
					BZ=0.1 to 0.7	2	Concrete, 5-inches.			
						4	Please refer to the borehole logs for wells SVMW-202 and PSVE-3.			
						6				
						8				
						10				
						12				
						14				
						16				



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-23	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
							Please refer to the borehole logs for wells SVMW-202 and PSVE-3. (Continued)				
						20					
						22					
						24					
						26					
						28					
					BZ=0.1 to 0.3	30					
						32					
						34					
						36	Slow drilling, some chatter.				
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PF-ST-12B.GPJ EKI.GDT 1/3/03





# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-23	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						0	Total Depth = 76 feet.				
						48					
						50					
						52					
						54					
						56	BZ=0.1 to 0.2				
						58					
			0.4	30	S=4.0	60	<u>SAND WITH SILT AND GRAVEL</u> , Olive brown [2.5Y 4/3], sand (70, 20, 10), 20% fine to coarse gravel (angular to subrounded), 5-15% fines, loose, dry.	SW-SM			
			0	50/6			As above; wet.	11/21/02			
						62					
						64	<u>SAND</u> , no color change, sand (30, 50, 20), 10-15% fine gravel (pea sized), <5% fines, loose, wet.	SW			
			0.5	50/6	BZ=0.1	66					
			0.5			68					
			0.5			70	As above, wet.				
						72					
						74					
			0.2	50/6			As above, wet; poor recovery.				

BOREHOLE AND WELL CONSTRUCTION PFIS1JZB.GPJ EKI.GDT 1/3/03





Erier &  
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Inc.

# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-23	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						76					
						78					
						80					
						82					
						84					
						86					
						88					
						90					
						92					
						94					
						96					
						98					
						100					
						102					
						104					

BOREHOLE AND WELL CONSTRUCTION PFISTER.GPJ EKL.GDT 1/3/03



**EKI** Erler &  
Kalinowski,  
Inc.

REMARKS

BOREHOLE AND WELL CONSTRUCTION PFIST, J.B.G.P.J EKI, GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-24	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
			0.5 0.4	50/6	BZ=0.8 S=1.8	20	SAND WITH SILT AND GRAVEL. Brown [10YR 5/3], sand (50, 30, 20), 30% fine to coarse gravel (angular to subrounded), 5-15% fines, loose, dry to moist. (Continued)	SW-SM			
						22	As above; gravel increasingly more angular.				
						24					
						26	As above; color change to dark yellowish brown [10YR 4/4] inferred from cuttings.				
						28					
			0.5 0.5 0.2	50/6	BZ=0.4 to 0.8 S=2.6	30	As above; sand (60, 20, 20), 20-30% fine gravel (subangular to subrounded), 10% fines, dry.				
						32					
						34					
						36					
						38	SAND WITH GRAVEL. Brown [10YR 4/3], sand (40, 30, 30), 20-30% fine gravel (subangular to subrounded), <5% fines, loose, dry.	SW			
						40					
			0.5 0.5 0.5	50/6	BZ=0.3 S=0.9	42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PF1512ZB.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-24	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	slow drilling, lots of chatter.	SW			
						48	<u>SILTY SAND WITH GRAVEL</u> , Dark yellowish brown [10YR 4/4], sand (60, 20, 20), 20-30% fine to coarse gravel, 20% fines, no plasticity, loose, dry.	SM			
		I	0.5	50/6	BZ=0.3	50					
		I	0.5		S=1.0	50					
		I	0.5			52					
						54					
						56					
						58	<u>SAND WITH SILT AND GRAVEL</u> , no color change, 60-70% sand, 30% gravel (angular), 5-15% fines, loose, dry.	SW-SM			
		I	0.4	50/6	BZ=0.1	60					
					S=0.3	60					
						62	<u>SAND WITH GRAVEL</u> , Brown [10YR 4/3], 70-80% sand, 20-30% fine to coarse gravel (subrounded), <5% fines, dense, wet.	SW			
		I	0.5	50/6	BZ=0.2	64					
		I	0.5			64					
		I	0.5			66					
						68					
		I	0.5	50/6		70	As above; wet.				
		I	0.5			72					
		I	0.5			74					
							Total Depth = 75 feet.				

BOREHOLE AND WELL CONSTRUCTION PF15142B.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Central Building P Area			<b>BOREHOLE / WELL NAME</b> PMW-25		
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979			<b>PROJECT NAME</b> Price Pfister		
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)			<b>PROJECT NUMBER</b> A20034.03 Task 1		
<b>CONDUCTOR CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b> 11/25/02	<b>DATE COMPLETED</b> 11/25/02
<b>BLANK CASING</b> Sch 40 PVC	<b>DIAMETER (inches)</b> 2.00	<b>FROM (feet)</b> 0.5	<b>TO</b> 55.0	<b>BOREHOLE DIAM (inches)</b> 7.8	<b>TOTAL DEPTH (feet)</b> 76
<b>PERFORATED CASING</b> Sch 40 PVC with 0.03-inch slots	<b>DIAMETER (inches)</b> 2.00	<b>FROM (feet)</b> 55.0	<b>TO</b> 75.0	<b>DATUM</b> NAD 1927	
<b>GROUT</b> High-percent-solids Bentonite (hydrated in drum)		<b>FROM (feet)</b> 1.0	<b>TO</b> 50.0	<b>TOP OF CASING</b> 1041.23	<b>GROUND SURFACE</b> 1041.67
<b>SEAL</b> Medium Bentonite Chips (hydrated in place)		<b>FROM (feet)</b> 50.0	<b>TO</b> 53.0	<b>LOGGED BY</b> Jonathan Boxerman	
<b>FILTER PACK</b> #3 Sand (0.85 mm - 2.36 mm)		<b>FROM (feet)</b> 53.0	<b>TO</b> 75.0	<b>CHECKED BY</b> Earl James, RG #4544	

## REMARKS

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
13:10	PMW25-1-1.5	⊗	0.5		BZ=0.1 to 0.7 S=0.7	2	SP		
						15% coarse gravel increasing to 1-inch diameter.			
08:17	PMW25-4.5-5	⊗	0.5 0.5 0.1	50/6	BZ=0.1 S=1.5	4	SW		
						SAND WITH GRAVEL, no color change, sand (80, 10, 10), 30% fine to coarse gravel (subangular to subrounded), gravel up to 1.5-inches diameter, <5% fines, loose, dry.			
08:28	PMW25-10-10.5	⊗	0.5 0.5 0.5	50/6	S=1.4	10			
						As above; color change to brown [10YR 4/3], sand (50, 30, 20).			
08:40	PMW25-14.5-15	⊗	0.5 0.5 0.3	50/6	S=1.1	14			
						As above; color change to dark yellowish brown [10YR 4/4], sand (40, 40, 30), gravel increasing to 30-40% (angular to rounded), fine gravel is well rounded.			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-25	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:49	PMW25-20-20.5	5	0.5 0.5 0.2	18 50/2	BZ=0.1 S=1.1	20	<u>SAND WITH SILT AND GRAVEL</u> . Dark yellowish brown [10YR 4/6], sand (75, 10, 15), 25-35% coarse gravel to 1-inch diameter (angular to rounded), 5-15% fines, no to low plasticity, loose, soft, dry.	SW-SM			
						22					
						24					
09:00	PMW25-25-25.5	5	0.5 0.5 0.1	75/6	BZ=0.1 S=1.9	25	As above.				
						26					
						28					
09:11	PMW25-30-30.5	5	0.5 0.5 0.1	75/6	BZ=0.1 S=0.5	30	<u>SAND WITH GRAVEL</u> . Brown [10YR 4/3], sand (60, 20, 20), 25% fine to coarse gravel to 1-inch diameter (angular to subrounded), <5% fines, no plasticity, loose, dry.	SW			
						32					
						34					
09:21	PMW25-34.5-35	5	0.5 0.4	75/6	BZ=0.1 S=0.4	35	As above.				
						36					
						38					
09:33	PMW25-39.5-40	5	0.5 0.2	65/4	BZ=0.1 S=1.3	40	Slight color change to light olive brown [2.5Y 4/3], no to low plasticity.				
						42					
						44					
09:43	PMW25-44.5-45	5	0.5 0.4	50/6	S=0.6	45	<u>SAND WITH GRAVEL</u> , no color change, sand (90, 5, 5), 15% gravel to 0.5-inches diameter, <5% fines, poorly sorted.	SP			
						46					

BOREHOLE AND WELL CONSTRUCTION PFISTER (JZB.GPJ) EKLGDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-25	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
						48	SAND WITH GRAVEL, no color change, sand (90, 5, 5), 15-20% fine to coarse gravel (angular to rounded) to 1.5-inches, <5% fines, poorly sorted. (Continued)	SP			
			0.5	75/6	S=2.4	50					
			0.5			52					
						54	SAND WITH SILT AND GRAVEL, Olive brown [2.5Y 4/4], sand (80, 10, 10), 15-20% fine to coarse gravel (angular to rounded) to 1.5-inches, 5-15% fines, no to low plasticity, loose.	SP-SM			
			0.5	50/6		56					
			0.5			58					
			0.5	50/6		60	SAND WITH GRAVEL, Olive brown [2.5Y 4/3], sand (70, 10, 20), 30-40% gravel to 1-inch diameter (angular to rounded), <5% fines, loose, dry.	SW			
			0.5			62	SAND WITH SILT, Dark grayish brown [2.5Y 4/2], sand (60, 20, 20), <15% fine gravel (subrounded), 5-15% fines, wet.	SP-SM			
						64	From 61-62 to 65 feet hammer is wet.				
			0.5	50/6		66					
			0.5			68					
			0.1	50/6		70	As above; poor recovery, wet.				
						72					
						74	As above.				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-25	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						76					
						78					
						80					
						82					
						84					
						86					
						88					
						90					
						92					
						94					
						96					
						98					
						100					
						102					
						104					

BOREHOLE AND WELL CONSTRUCTION PFISTER.PPJ EKI.GDT 11/3/03





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# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Central Building P Area				BOREHOLE / WELL NAMEPMW-26			
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister			
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1			
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED12/3/02	DATE COMPLETED12/4/02	
BLANK CASINGSch 40 PVC		DIAMETER (inches)2.00	FROM (feet)0.3	TO55.0	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)76	
PERFORATED CASINGSch 40 PVC with 0.03-inch slots		DIAMETER (inches)2.00	FROM (feet)55.0	TO75.0	DATUMNAD 1927		
GROUTHigh-percent-solids Bentonite (hydrated in drum)			FROM (feet)0.4	TO50.5	TOP OF CASING1041.43	GROUND SURFACE1041.76	
SEALMedium Bentonite Chips (hydrated in place)			FROM (feet)50.5	TO53.0	LOGGED BYLogan Hansen		
FILTER PACK#3 Sand (0.85 mm - 2.36 mm)			FROM (feet)53.0	TO75.0	CHECKED BYEarl James, RG #4544		

**REMARKS** From 0.5 to 45.5 feet below ground surface (45 feet) augers remain in place in borehole above seal and filter pack. Groundwater monitoring well located adjacent to 8.5-foot deep sump.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
13:10	PMW26-1-2	Δ	0.5 0.2 0	10 22 20	BZ=0	2	Concrete, 6-inches. Baselock, 4-inches. SILTY SAND, Black [10YR 2/1], fine grained sand, 10-20% fines, dry to moist.	SM		
13:15	PMW26-5-5.5	Δ	0.3	50		4	SAND WITH SILT AND GRAVEL, Black [10YR 2/1], fine grained sand (80, 10, 10), 30-40% fine to coarse gravel to 3-inches in diameter from cuttings (subangular), 5-10% fines, dry.	SP		
13:20	PMW26-10-11	Δ	0.5 0.3	60		10				
13:30	PMW26-15-15.5	Δ	0.5 0.1	60		16	As above; large rocks, difficult drilling.			

BOREHOLE AND WELL CONSTRUCTION PF15U2B.GPJ EKL/GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-26	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:45	PMW26-25-25.5		0.1	55		20	SAND WITH SILT AND GRAVEL. Black [10YR 2/1], fine grained sand (80, 10, 10), 30-40% fine to coarse gravel to 3-inches in diameter from cuttings (subangular), 5-10% fines, dry. (Continued)  As above; very dark grayish brown [10YR 3/2], sand (70, 15, 15), dry; poor recovery due to gravel.	SP			
						22					
						24					
						26					
13:55	PMW26-30-30.5		0.5	70	BZ=0	28	As above; large rocks, difficult drilling.				
						30					
						32					
						34					
14:00	PMW26-35-35.5		0.5 0.3	70	S=0	36	As above.				
						38					
						40					
						42					
14:25	PMW26-45-46		0.5 0.4	70		44	As above; silt content increasing to 10-15%.				
						46					

BOREHOLE AND WELL CONSTRUCTION PF1STJ2B.GPJ EKJ.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-26	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						0		0			
						48					
						50	As above.				
			0.5 0.3	60		52					
						54					
			0.5 0.3	65		56	As above; decreasing silt to 5-10%.				
						58					
			0.5 0.5 0.3			60	<u>SILTY SAND WITH GRAVEL</u> , Very dark grayish brown [10YR 3/2], fines increase to 10-20%.	SM			
						62					
						64	<u>SAND WITH SILT</u> , Very dark grayish brown [10YR 3/2], fine to coarse sand (34, 33, 33), 5-10% fines, few fine gravels, wet.	SW			
			0.5 0.5 0.5	60		66					
						68					
			0.5 0.5 0.5	50		70	As above; 5-10% gravel (up to 2-inches diameter in liner), flowing sand.				
						72					
						74	Easy drilling, 70-75 feet less gravel.				
			0.5	50			<u>SAND WITH SILT</u> , Very dark grayish brown [10YR 3/2], 5-15% silt; fine grained sand; sand not flowing.	SP			

Total Depth = 76 feet.





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		PMW-26	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
		1	0.5			76					
						78					
						80					
						82					
						84					
						86					
						88					
						90					
						92					
						94					
						96					
						98					
						100					
						102					
						104					

BOREHOLE AND WELL CONSTRUCTION PF1STJ2B.GPJ EX1.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION			13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME		PSVE-1			
DRILLING COMPANY			West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME		Price Pfister			
DRILLING METHOD			Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER		A20034.03, Task 1			
CONDUCTOR CASING		NA	DIAMETER (inches)			FROM (feet)	TO	DATE STARTED	6/26/02	DATE COMPLETED	6/27/02
BLANK CASING		Schedule 40 PVC	DIAMETER (inches)		4.00	FROM (feet)	0.5 TO 35.0	BOREHOLE DIAM (inches)	10.0	TOTAL DEPTH (feet) 57	
PERFORATED CASING		Sch 40 PVC with 0.04-inch slots	DIAMETER (inches)		4.00	FROM (feet)	35.0 TO 55.0	DATUM NAD 1927			
GROUT			Medium Bentonite Chips (hydrated in place)			FROM (feet)	3.0 TO 32.0	TOP OF CASING		GROUND SURFACE 1041.85	
SEAL			No. 8 Bentonite Chips (hydrated in place)			FROM (feet)	32.0 TO 33.0	LOGGED BY Logan Hansen			
FILTER PACK			Medium Aquarium Sand (1.18 mm - 4.75 mm)			FROM (feet)	33.0 TO 55.0	CHECKED BY Earl James, RG #4544			

REMARKS Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
14:25	PSVE-1-1-2	+	0.1	70(6)		2	Concrete, 5.5-inches.		
		+	1				SAND WITH SILT AND GRAVEL, Grayish brown [10YR 5/2]; 10-20% fine to coarse gravel; 10-20% silt; fine grained sand; dry.	SW-SM	
		+	0	30					
		+	0	50					
		+	0			4	As above; gravel up to 3-inches in diameter in cuttings.		
		+				6			
		+				8	SAND WITH GRAVEL, Grayish brown [10YR 5/2]; 10-20% fine to coarse gravel and freshly broken gravel fragments; 5-10% silt; sand (70,20,10); gravel is angular to subangular; dry.	SW	
14:40	PSVE-1-9.5-10	+	0	70(8)					
		+	0						
		+	0						
		+	0						
		+	0						
15:00	PSVE-1-11-12	+	0.4			10	As above.		
		+	0	30	A=2.9				
		+	0.2	60(3)					
		+	1		S=2.5	12			
		+				14			
		+	0	60(8)	A=1.0		As above; angular gravel to 1.5-inches in diameter.		
		+	0.5		BZ=0.2	16			
		+	0.5						



# Borehole & Well Construction Log




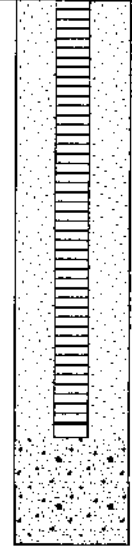
PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-1	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							<u>SAND WITH GRAVEL</u> . Grayish brown [10YR 5/2]; 10-20% fine to coarse gravel and freshly broken gravel fragments; 5-10% silt; sand (70,20,10); gravel is angular to subangular; dry. (Continued)	SW			
			0 0.1 0.5 0.4	18 70(4)	S=2.3	20  22	As above.				





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-1	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		I	0.5			48	SAND WITH GRAVEL. Grayish brown [10YR 5/2]; 10-20% fine to coarse gravel and freshly broken gravel fragments; 5-10% silt; sand (70,20,10); gravel is angular to subangular; dry.	SW			
		I	0.1	60(6)	S=4.8	50	As above.				
		I	0.5			52					
		I	0.5			54					
		I	0.1	27		56	As above; common freshly broken gravel fragments (angular). Slough at bottom of borehole.				
		I	0.5	50		58	Total Depth = 57 feet.				
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PRICELOH.CPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME PSVE-2		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/25/02	DATE COMPLETED 6/26/02
BLANK CASING Schedule 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5	TO 35.0	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 56.5
PERFORATED CASING Sch 40 PVC with 0.04-inch slots	DIAMETER (inches) 4.00	FROM (feet) 35.0	TO 55.0	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 3.0	TO 32.0	TOP OF CASING	GROUND SURFACE 1042.05
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet) 32.0	TO 33.0	LOGGED BY Logan Hansen	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 33.0	TO 55.0	CHECKED BY Earl James, RG #4544	

REMARKS Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
08:45	PSVE-2-1.5-2.5	⌵	0.1 0.2 0.9	50(4) 75(8)	BZ=0 S=180	2	Concrete, 7-inches. SAND WITH SILT. Very dark gray [10YR 3/1]; 10-20% silt; <5% fine gravel and freshly broken gravel fragments; sand (90,5,5); dry to moist.	SW-SM	
09:00	PSVE-2-8-8.5	⌵	0 0 0.5 0 0 0	60	A=130 BZ=0.1 S=3.0 A=180	4 6 8	Poor recovery because gravel plugged liners. As above; increasing fine gravel to 5-15%.		
09:05	PSVE-2-10.5-11.5	⌵	0.7	40	A=55 S=4.0	10	Poor recovery because gravel plugged liners.		
09:15	PSVE-2-15.5-16.5	⌵	0 1		S=4.0	12 14 16	Color change to olive brown [10YR 4/3]; dry.  Poor recovery because gravel plugged liners.		

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-2			
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION			
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)							
10:15	PSVE-2-25.5-26.5		0.2	70(6)	S=2.6	20	<u>SAND WITH SILT</u> . Very dark gray [10YR 3/1]; 10-20% silt; <5% fine gravel and freshly broken gravel fragments; sand (90,5,5); dry to moist. (Continued)	SW-SM					
			0.5		BZ=1.4		As above; decreasing fine gravel and freshly broken gravel fragments (subangular) to <5%; 5-10% silt; increasing medium grained sand (80,15,5); dry to moist.						
			0.5								22		
											24		
			0	75(4)									
			0.7		BZ=0.2	26	As above.						
					A=1.5								
					BZ=0.5	28							
											30		
			0	75(8)									
0.1		BZ=3.0		As above; increasing gravel to 5-15%.		32							
		0.2				34							
10:55	PSVE-2-40.5-41.5		0	30		36	Poor recovery because gravel plugged liners.						
			0	60(3)									
			0.1										
					BZ=1.0	38							
					BZ=0.6								
			0	70(5)		40					As above.		
			0.9									42	
												44	
11:03	PSVE-2-45-46.5		1.4	27		46	As above.						
				40(2)									



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-2	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
11:20	PSVE-2-55.5-56.5		0.5 0.5 0.5	75(8)	S=5.5	48	SAND WITH SILT. Very dark gray [10YR 3/1]; 10-20% silt; <5% fine gravel and freshly broken gravel fragments; sand (90.5.5); dry to moist.	SW-SM			
						50	As above; sand (90.5.5); 5% fine gravel; few freshly broken gravel fragments to 1.5-inches in diameter.				
						52					
						54					
						56	Slough at bottom of borehole. Total Depth = 56.5 feet.				
						58					
						60					
						62					
						64					
						66					
						68					
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME PSVE-3		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/26/02	DATE COMPLETED 6/28/02
BLANK CASING Schedule 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5	TO 33.0	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 48
PERFORATED CASING Sch 40 PVC with 0.04-inch slots	DIAMETER (inches) 4.00	FROM (feet) 33.0	TO 48.0	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 3.0	TO 30.0	TOP OF CASING	GROUND SURFACE 1041.94
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet) 30.0	TO 31.0	LOGGED BY Logan Hansen	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 31.0	TO 48.0	CHECKED BY Earl James, RG #4544	

**REMARKS** Augers were refused at 48 feet bgs by large gravel clasts. Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION			
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)							
08:10	PSVE-3-2.5-3.5		0	20	BZ=0 A=1.0		Concrete, 5.5-inches	SM					
			0.5	50			SILTY SAND WITH GRAVEL. Very dark grayish brown [10YR 3/2]; 10-20% silt; 5-10% fine gravel and freshly broken gravel fragments (based upon cuttings and driller's observations); fine to medium grained sand; dry.						
			0.5			2							
			0.1	70(8)									
			1			4							
08:15	PSVE-3-7.5-8.5		0	28	A=6.6		As above; increasing gravel to 10-20%; fine to medium grained sand.						
			1	60(6)		8							
08:25	PSVE-3-9-11.5		0	15			As above.						
			1	70(6)		10							
			1.2	85(6)		12							
						14							
			0	65(6)	S=16.6 BZ=0		Color change to brown [10YR 4/3]; freshly broken gravel fragments to 1-inch in diameter; dry.						
			0.4			16							
			0.5										




# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-3	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
10:25	PSVE-3-41.5-42		0	33	S=48.9 BZ=0	20	SILTY SAND, Brown [10YR 4/3]; 10-20% silt; 5-15% fine gravel and freshly broken gravel fragments to 1.5-inches in diameter; sand (90,5,5).	SM			
			0.5	60(3)		22		SM			
			0.5			24					
			0.5	30		26	As above.				
			0.5	50		28	As above; large gravel jammed inside augers - delayed while trying to dislodge it.				
			0.5			30	No sample collected at 30 feet bgs because soil is too gravelly to sample.				
			0.5			32					
			0.5			34					
			0	80(4)		36	As above; large gravel and gravel fragments to 2-inches in diameter; decreasing fine gravel.				
			0.1			38					
			0.5			40	As above; dry to moist.				
			0.5	70(7)		42					
		0	70(8)	A=150	44	As above.					
		0.5		S=18	46						
		0.5		S=25							



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-3	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		H	0.5		A=150	48	Driller tried for half an hour to break through large gravel clast at 48 feet bgs. Refusal at 48 feet. Total Depth = 48 feet.	SM			
						50					
						52					
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					



# Borehole & Well Construction Log



**Erler &  
Kalinowski,  
Inc.**

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area				BOREHOLE / WELL NAME <b>PSVE-4</b>	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME <b>Price Pfister</b>	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER <b>A20034.03, Task 1</b>	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/25/02 DATE COMPLETED 6/26/02
BLANK CASING	Schedule 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5	TO 35.0	BOREHOLE DIAM (inches) 10.0 TOTAL DEPTH (feet) 56.5
PERFORATED CASING	Sch 40 PVC with 0.04-inch slots	DIAMETER (inches) 4.00	FROM (feet) 35.0	TO 55.0	DATUM NAD 1927
GROUT	Medium Bentonite Chips (hydrated in place)		FROM (feet) 3.0	TO 32.0	TOP OF CASING GROUND SURFACE 1041.91
SEAL	No. 8 Bentonite Chips (hydrated in place)		FROM (feet) 32.0	TO 33.0	LOGGED BY Logan Hansen
FILTER PACK	Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 33.0	TO 55.0	CHECKED BY Earl James, RG #4544
REMARKS Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.					

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
14:30	PSVE-4-1.5-2.5	+	0.5 0.5 1 0.5 0.5		BZ=0	2	SM		
14:37	PSVE-4-7.5-8.5	+	0 1 0	27 50 26		8	SW-SM		
14:45	PSVE-4-9-10	+	0.7 0 0 0.5	50 23 50	S=1.7	10			
		+			BZ=0	12			
		+			A=0.4	14			
		+	0 0.25 0.5	75(5)		16			
						Concrete, 5-inches.			
						SILTY SAND, Very dark gray [10YR 3/1]; 20-30% silt; few coarse grained sands to fine gravels; fine grained sand; dry to moist.			
						SAND WITH SILT, Very dark gray [10YR 3/1]; 10-20% silt; sand (90,5,5); dry to moist.			
						Color change to very dark grayish brown [10YR 3/2]; 5-15% silt; 5-10% fine gravel and freshly broken gravel fragments (angular to subangular).			

BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log



Erler &  
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Inc.

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-4	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							<p><u>SAND WITH SILT</u>, Very dark gray [10YR 3/1]; 10-20% silt; sand (90,5,5); dry to moist. (Continued)</p>	SW-SM			
			0 0 0	60(6)		20	Poor recovery because gravel plugged liners.				
						22					
						24					
			0 0.1 0.5	50(6)	S=6.6	26	As above; increasing gravel to 10-15%.				
						28					
			0 0.1 0.5 0.5	56 53		30	As above; gravel to 1-inch in diameter.				
						32					
						34					
			0 0.5 0.5	70(7)	S=3.8	36					
						38					
			0 0.5 0.5			40	As above; increasing gravel to 15-20%.				
						42					
						44					
			0 0.1 0.5	75(6)		46	As above; no gravel.				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-4	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
			0.5			48	SAND WITH SILT. Very dark gray (10YR 3/1); 10-20% silt; sand (90,5,5); dry to moist.	SW-SM			
			0.5	37		50	As above; gravel to 2-inches in diameter.				
			0.5	50							
			0.5	50							
						52					
						54					
			0.1	32			As above; increasing silt.				
			0.5	75(6)		56	Slough at bottom of borehole.				
			0.5				Total Depth = 56.5 feet.				
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKL.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Oil Staging Area				BOREHOLE / WELL NAME PSVE-5	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER A20034.03, Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/9/02	DATE COMPLETED 7/9/02
BLANK CASING Schedule 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5	TO 31.0	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 51.5
PERFORATED CASING Sch 40 PVC with 0.04-inch slots	DIAMETER (inches) 4.00	FROM (feet) 31.0	TO 51.0	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 3.0	TO 27.0	TOP OF CASING	GROUND SURFACE 1038.77
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 27.0	TO 29.0	LOGGED BY Logan Hansen	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 29.0	TO 51.0	CHECKED BY Earl James, RG #4544	

REMARKS Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
07:55	PSVE-5-3.5-4.5		0.1	14		2	Asphalt, 5-inches. <b>SAND WITH SILT AND GRAVEL.</b> Very dark grayish brown [10YR 3/2]; 25-35% fine to coarse gravel and freshly broken gravel fragments to 4-inches in diameter (angular to subangular); 5-10% silt; sand (80,10,10); dry to moist.	SW-SM		
			0.5	27						
			0.5	50						
			0	50						
			0.3							
			0	15						
08:10	PSVE-5-10.5-11.5		0.7	50		4	As above; decreasing gravel to 10-20%; gravel is fine; increasing silt to 10-20%; sand (90,5,5); dry to moist.			
						6				
						8				
08:15	PSVE-5-12-13		0	20		10	As above.			
			0	50		12				
			0.4			14				
			0.2	16		16				
			1	27						
			0	32						
			0	21						
			1	30						
				33						



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-5	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							<b>SAND WITH SILT AND GRAVEL.</b> Very dark grayish brown [10YR 3/2]; 25-35% fine to coarse gravel and freshly broken gravel fragments to 4-inches in diameter (angular to subangular); 5-10% silt, sand (80,10,10); dry to moist.	SW-SM			
			0.4	60(6)	S=3.0	20	As above; large gravel (1.5-inches in diameter) in bottom of liners.				
			0			22					
			0		BZ=0	24					
			0.5	50(6)		26	As above; common freshly broken gravel fragments to 3/4-inches in diameter.				
			0			28					
			0.5	50(6)	S=4.0	30	As above; one large, greenish black, dense angular gravel clast (1.5-inches in diameter).				
			0			32	As above; broken gravel fragments that crumble easily with common iron oxidation stains; gravel appears to be weathered.				
			0			34					
			0.5	75(6)		36	As above; increasing fine gravel to 20-30%; common freshly broken gravel fragments in liner to 3/4-inches in diameter.				
			0			38					
			0.2	50(6)		40	As above; broken gravel fragments that crumble easily with common iron oxidation stains; gravel appears to be weathered.				
			0.5			42					
			0		BZ=0	44					
			0.2	60(6)		46	As above; gravel appears to be weathered.				
			0.5								
			0								

BOREHOLE AND WELL CONSTRUCTION PRICELOH GPJ EKI GDT 11/11/02



# Borehole & Well Construction Log



**Erler &  
Kalinowski,  
Inc.**

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-5		
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES			USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)							DEPTH (feet)
						48	<p><b>SAND WITH SILT AND GRAVEL.</b> Very dark grayish brown (10YR 3/2); 25-35% fine to coarse gravel and freshly broken gravel fragments to 4-inches in diameter (angular to subangular); 5-10% silt; sand (80,10,10); dry to moist. (Continued)</p>			SW-SM		
			0.1 0.5 0	50(6)		50	<p>As above; increasing fine to coarse gravel to 30-40%; dry to moist.</p>					
						52	<p>Slough at bottom of borehole. Total Depth = 51.5 feet.</p>					
						54						
						56						
						58						
						60						
						62						
						64						
						66						
						68						
						70						
						72						
						74						



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Oil Staging Area				BOREHOLE / WELL NAME PSVE-6			
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister			
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER A20034.03, Task 1			
CONDUCTOR CASING	NA	DIAMETER (inches)		FROM (feet)	TO	DATE STARTED	DATE COMPLETED
BLANK CASING	Schedule 40 PVC	DIAMETER (inches)	4.00	FROM (feet)	0.5 TO 35.0	BOREHOLE DIAM (inches)	TOTAL DEPTH (feet)
PERFORATED CASING	Sch 40 PVC with 0.04-inch slots	DIAMETER (inches)	4.00	FROM (feet)	35.0 TO 55.0	DATUM	NAD 1927
GROUT	Medium Bentonite Chips (hydrated in place)			FROM (feet)	3.0 TO 32.0	TOP OF CASING	GROUND SURFACE 1042.76
SEAL	Medium Bentonite Chips (hydrated in place)			FROM (feet)	32.0 TO 33.0	LOGGED BY	Logan Hansen
FILTER PACK	Medium Aquarium Sand (1.18 mm - 4.75 mm)			FROM (feet)	33.0 TO 55.0	CHECKED BY	Earl James, RG #4544
REMARKS Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.							

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION										
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)					DEPTH (feet)									
11:50	PSVE-6-2.5-3.5		0.5	34	BZ=0	Concrete, 7-inches.	SW-SM												
			0.1	50															
			0.1	17															
			0.9	28															
12:10	PSVE-6-9-10		0.9	38						As above.									
			0	26															
			0	50															
			0.5	36															
12:20	PSVE-6-10.5-11.5		0.1	36											Color change to dark brown [10YR 3/3]; common iron oxidation stains on gravel; gravel appears to be weathered.				
			0.9	50															
			0	39															
			0.9	50															
			0	29															
			0.3	50															
			0.5																



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-6	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							SAND WITH SILT. Dark brown [10YR 3/3]; 10-20% silt, 5-15% fine gravel; dry to moist.	SW-SM			
			0 0.3 0.5	50	S=94	20	As above; decreasing gravel to 5-15%; no weathered gravel; dry to moist.				
						22	High PID reading for soil sample may be a result of moisture in baggie.				
						24					
			0 0.3 0.5	50		26	As above; decreasing silt to 5-15%; freshly broken gravel fragments in liners.				
						28					
			0 0 0.1	50		30	Poor recovery because of large, freshly broken gravel fragments up to 1-inches in diameter in liners.				
						32					
						34					
			0 0 0.4	60		36	As above; decreasing gravel to 5-10%; sand (90,5,5); dry to moist.				
						38					
					A=3.2	40	As above; common freshly broken gravel fragments to 1.5-inches in diameter (angular to subangular).				
			0 0.3 0.5	50		42					
						44					
			0 0 0.2	50(0)		46	Poor recovery because gravel plugged liners.				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-6	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	SAND WITH SILT. Dark brown [10YR 3/3]; 10-20% silt; 5-15% fine gravel; dry to moist. (Continued)	SW-SM			
			0 0.1 0.5	60		50	As above.				
						52					
						54	As above; gravel appears to be weathered.				
			0.2 0.5 0.5	60		56	SILTY SAND. Dark yellowish brown [10YR 4/4]; 30-40% silt; no gravel; fine grained sand; no plasticity; moist.	SM			
						58	Slough at bottom of borehole. Total Depth = 56.5 feet.				
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Oil Staging Area			BOREHOLE / WELL NAME PSVE-7		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/8/02	DATE COMPLETED 7/8/02
BLANK CASING Schedule 40 PVC	DIAMETER (inches) 4.00	FROM (feet) 0.5	TO 35.0	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 56.5
PERFORATED CASING Sch 40 PVC with 0.04-inch slots	DIAMETER (inches) 4.00	FROM (feet) 35.0	TO 55.0	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 3.0	TO 32.0	TOP OF CASING	GROUND SURFACE 1043.35
SEAL Medium Bentonite Chips (hydrated in place)		FROM (feet) 32.0	TO 33.0	LOGGED BY Logan Hansen	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet) 33.0	TO 55.0	CHECKED BY Earl James, RG #4544	

REMARKS Sand was placed in the annular space below the well box because the well box was replaced when this well was attached to a soil vapor extraction (SVE) system.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
07:50	PSVE-7-2.5-3.5		0.1	17	BZ=0.2	2	SM		
			0.3	30					
			0.4	39					
			0	31					
			0.7	20					
08:25	PSVE-7-7.5-8.5		0.2	20	S=15	6	SM		
			0.9	26		8			
			0	30					
			0	33					
			0	50(5)					
09:10	PSVE-7-15.5-17		0.5		S=3.7	10	SM		
						12			
						14			
			0	50(6)					
			0.8			16			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-7	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
					BZ=0		<u>SILTY SAND</u> , Brown [10YR 4/3]; 10-20% silt; 5-15% fine to coarse gravel and freshly broken gravel fragments to 1-inch in diameter; sand (90,5,5). (Continued)	SM			
		I	0	60(2)	S=1.1	20	As above.				
		I	0.1			22					
		I	0.5			24					
		I	0	35	BZ=0.2	26	As above.				
		I	0.1	50		28					
		I	0.4			30					
		I	0	35		32	Color change to dark brown [10YR 3/3]; 5% fine gravel; few coarse gravels; dry to moist.				
		I	0	50		34					
		I	0.4			36					
		I	0	50(6)	S=35	38	As above. High PID reading for soil sample may be a result of moisture in baggie.				
		I	0.2			40					
		I	0.5			42					
		I	0	50(6)		44	Slow drilling at approximately 40 feet bgs because of gravelly conditions.				
		I	0			46	As above; iron oxidation stains on 1.5-inch diameter gravel that plugged liners. Gravel clast is fine grained, dense, and appears to be weathered.				
		I	0.2								
		I	0	50(6)			As above; dry to moist; common iron oxidation stains and white powdery material that crumbles easily and does not react with acid on edges of gravel; gravel appears to be weathered.				
		I	0.3								
		I	0.5								



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		PSVE-7	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	<u>SILTY SAND</u> Brown [10YR 4/3]; 10-20% silt; 5-15% fine to coarse gravel to 1-inch in diameter; sand (90,5,5).	SM			
			0 0.1 0.4	50(6)	S=25	50	As above.				
						52					
						54					
			0 0 0.2	60(6)		56	As above.				
						58	Slough at bottom of borehole.				
						60	Total Depth = 56.5 feet.				
						62					
						64					
						66					
						68					
						70					
						72					
						74					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - North Parking Lot			BOREHOLE / WELL NAME SVMW-203		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/16/02	DATE COMPLETED 7/16/02
BLANK CASING Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 1.0	TO 49.0	BOREHOLE DIAM (inches) 9.0	TOTAL DEPTH (feet) 49
PERFORATED CASING Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 14.0	TOP OF CASING	GROUND SURFACE 1042.21
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 18, 33, and 48 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
15:15	PVMW-3-2-3	+	0 0.3 0.5 0.8 0	8 8 10 12 16 20		2	SW-SM		
						4			
15:25	PVMW-3-7-8	+	0.9	50	BZ=0	8	SW		
15:30	PVMW-3-9-11	+	0.2 0.5	50(6)		10			
15:30	PVMW-3-9-11	+	1 0.2	27 50		12			
						14			
			0.3 0.5	32 50	S=6.2	16			



# Borehole & Well Construction Log


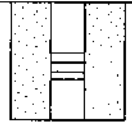
PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-203	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		I	0.5 0.1	50(6)		20	SAND WITH GRAVEL. Very dark brown [10YR 2/2]; 10-20% fine to coarse gravel and freshly broken gravel fragments to 1.5-inches in diameter.	SW			
		I	0.5 0.5	34 50	S=8.0	22	As above.				
		I	0.5 0.5	30 50		24	As above.				
		I	0.3 0.5	30 50		26	As above; one large, greenish black, dense angular gravel clast (1.5-inches in diameter).				
		I	0.2	50(6)		28	As above.				
		I	0.5	50(6)		30	As above.				





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-203	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		+	0.5 0.5	37 50		48	SAND WITH GRAVEL. Very dark brown (10YR 2/2); 10-20% fine to coarse gravel and freshly broken gravel fragments to 1.5-inches in diameter. (Continued)	SW			
							As above.				
							Total Depth = 49 feet.				
						50					
						52					
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - North Parking Lot			BOREHOLE / WELL NAME SVMW-204			
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAMEPrice Pfister			
DRILLING METHODHollow-Stem Auger (CME 95 Rig)			PROJECT NUMBERA20034.03, Task 1			
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED7/17/02	DATE COMPLETED7/17/02
BLANK CASING	Sch 40 PVC Support Rod	DIAMETER (inches)1.00	FROM (feet)1.0	TO55.0	BOREHOLE DIAM (inches)9.0	TOTAL DEPTH (feet)55
PERFORATED CASING	Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927	
GROUT	Medium Bentonite Chips (hydrated in place)		FROM (feet)2.0	TO20.0	TOP OF CASING	GROUND SURFACE1047.9
SEAL	No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BYLogan Hansen	
FILTER PACK	#3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BYEarl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 24, 39, and 54 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
07:45	PVMW-4-2.5-3.5		0.2	8	BZ=0	2	SM		
			0.4	11					
			0.5	14					
			0.3	10					
			1	16		4			
07:55	PVMW-4-7-8		1	30		6	SW-SM		
			0.5	50(6)		8			
			0.8	50		10			
08:05	PVMW-4-10-11		0.5	50	S=16	12			
			0.2	50		14			
						16			

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG/GRJ EKI GDT 11/11/02




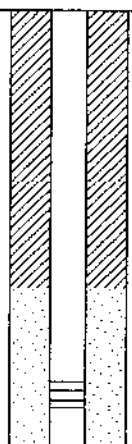


# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-204	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:35	PVMW-4-26.5-27.5		0.5	50(6)		20	<u>SAND WITH SILT</u> , Very dark grayish brown [10YR 3/2]; 5-15% silt; 5-10% fine gravel and freshly broken gravel fragments; sand (80,10,10); dry to moist. (Continued)	SW-SM			
			0.5			22	As above; common iron oxidation stains on gravels and gravel fragments crumble easily; gravel appears to be weathered.	SW-SM			
						24	<u>SAND WITH SILT AND GRAVEL</u> , Very dark grayish brown [10YR 3/2]; 5-15% silt; 10-20% fine to coarse gravel and freshly broken gravel fragments to 1.5-inches in diameter; sand (70,15,15); dry.				
			1	50(6)		26					
			0.1			28	Difficult drilling; driller replaces bit.				
			0.5	50		30	As above; common freshly broken gravel fragments in liners.				
						32					
			0.1	50		34	Poor recovery because gravel plugged liners.				
						36					
			0.5	50(6)		38	<u>SAND WITH SILT</u> , Very dark grayish brown [10YR 3/2]; 5-15% silt; 5-10% fine gravel and freshly broken gravel fragments.	SW-SM			
			0.5	50		40					
			0.4			42					
						44					
			0.5	50		46	As above; large gravel fragment to 2-inches in diameter; some gravel appears to be weathered.				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-204				
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION				
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)								
09:30	PVMW-4-54-55	I	0.2	50		48	SAND WITH SILT. Very dark grayish brown [10YR 3/2]; 5-15% silt; 5-10% fine gravel and freshly broken gravel fragments. (Continued)	SW-SM						
						50	As above.							
		I	1	50		52								
						54	As above.							
		Total Depth = 55 feet.												
											56			
											58			
											60			
											62			
											64			
						66								
						68								
						70								
						72								
						74								

BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/1/02



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - North Parking Lot				BOREHOLE / WELL NAME		SVMW-205		
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME		Price Pfister		
DRILLING METHODHollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER		A20034.03, Task 1		
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	7/17/02	DATE COMPLETED	7/17/02
BLANK CASINGSch 40 PVC Support Rod		DIAMETER (inches)1.00	FROM (feet)1.0	TO52.0	BOREHOLE DIAM (inches)9.0	TOTAL DEPTH (feet)52		
PERFORATED CASINGThree Vapor Implants		DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927			
GROUTMedium Bentonite Chips (hydrated in place)			FROM (feet)2.0	TO17.0	TOP OF CASING		GROUND SURFACE1045.41	
SEALNo. 8 Bentonite Chips (hydrated in place)			FROM (feet)	TO	LOGGED BYLogan Hansen			
FILTER PACK#3 Sand (0.85 mm - 2.36 mm)			FROM (feet)	TO	CHECKED BYEarl James, RG #4544			

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 21, 36, and 51 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
12:15	PVMW-5-1-2	Δ	0.5 0.4	28 50		2	Asphalt, 4-inches. SAND, Very dark brown [10YR 2/2]; 5-10% fine gravel and freshly broken gravel fragments; sand (40,40,20); dry.	SW		
		Δ	0.5 0.2	30 50(6)	BZ=0	4				
12:25	PVMW-5-7-8	Δ	0.5 0.2	50(6)		8				
12:30	PVMW-5-9-11	Δ	0.5 0.4	50(6)		10	Color change to dark grayish brown [10YR 4/2]; 5% fine gravel and freshly broken gravel fragments; sand (40,50,10); dry to moist.			
		Δ	0.5	50(6)		12				
		Δ	0.5	50(6)		14				
		Δ	0.5	50(6)		16				



# Borehole & Well Construction Log

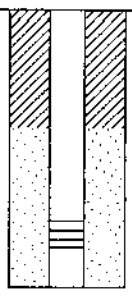
PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-205	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							SAND, Very dark brown [10YR 2/2]; 5-10% fine gravel and freshly broken gravel fragments; sand (40,40,20); dry. (Continued)	SW			
		I	0.5	50(6)	S=1.4	20	As above.				
						22					
						24					
		I	0.4	50(6)		26	As above.				
						28					
		I	0.3	50(6)		30	As above; common gravel fragments in liners.				
						32					
						34					
		I	0.5	50(6)		36	As above; common iron oxidation stains on gravels and gravel fragments crumble easily; gravel appears to be weathered.				
						38					
		I	0.1	50(6)		40	Poor recovery because gravel plugged liners.				
						42					
						44					
		I	0.5 0.1	50(6)		46	As above.				





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-205	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
		I	0.2	50(6)		48	SAND, Very dark brown (10YR 2/2); 5-10% fine gravel and freshly broken gravel fragments; sand (40,40,20); dry.	SW			
						50	As above; large gravel fragment (1.5-inches in diameter) in liners; gravel appears to be weathered.				
						52	Total Depth = 52 feet.				
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					


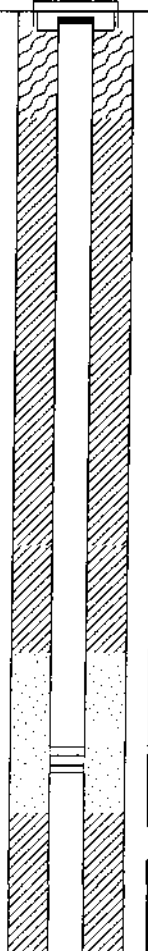
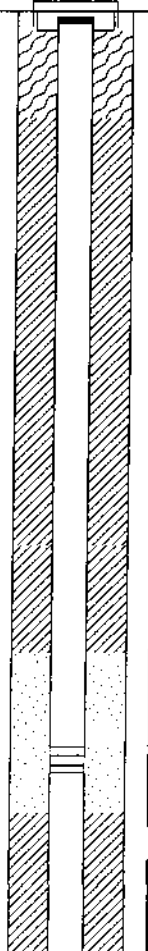

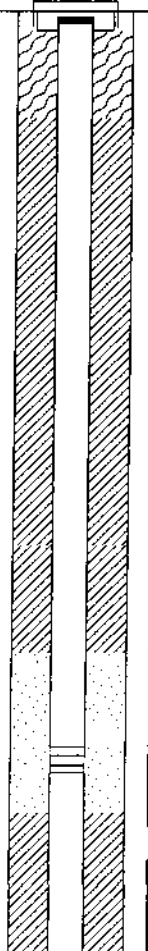
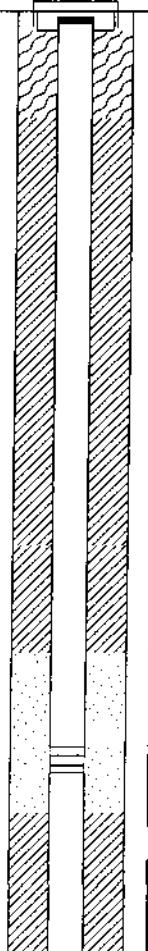

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG GPJ EKI GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St. Pacoima, CA - Along Western Site Boundary				BOREHOLE / WELL NAME		SVMW-206	
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME		Price Pfister	
DRILLING METHODHollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER		A20034.03, Task 1	
CONDUCTOR CASINGNA		DIAMETER (inches)		FROM TO		DATE STARTED7/16/02	DATE COMPLETED7/16/02
BLANK CASINGSch 40 PVC Support Rod		DIAMETER (inches)1.00		FROM (feet)1.0 TO45.0		BOREHOLE DIAM (inches)9.0	TOTAL DEPTH (feet)45
PERFORATED CASINGThree Vapor Implants		DIAMETER (inches)		FROM TO		DATUMNAD 1927	
GROUTMedium Bentonite Chips (hydrated in place)				FROM (feet)2.0 TO10.0		TOP OF CASING	GROUND SURFACE1035.14
SEALNo. 8 Bentonite Chips (hydrated in place)				FROM (feet) TO		LOGGED BYLogan Hansen	
FILTER PACK#3 Sand (0.85 mm - 2.36 mm)				FROM (feet) TO		CHECKED BYEarl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 14, 29, and 44 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand, and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
07:30	PVMW-6-2.5-3.5		0.4	26	BZ=0	2	SP		
			0.5	50					
			0.5						
			0.2	13					
			1	20		4			
				21					
07:45	PVMW-6-7-8		1	33	S=11	6	SW-SM		
				50		8			
07:50	PVMW-6-8.5-9.5		1	50		10			
			0.1			12			
			0.5	50		14			
			0.5			16			
			0.2						
				27					
			0.5	50					

BOREHOLE AND WELL CONSTRUCTION PRICELOH GPJ, EKL GDT 11/11/02





# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-206	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:15	PVMW-6-25-26		0.5 0.2	25 50	S=27.4  BZ=0	20	<u>SILTY SAND</u> . Brown [7.5YR 4/3]; 10-20% silt; common iron oxidation stains; fine grained sand. (Continued)  As above; 5-10% fine gravel and freshly broken gravel fragments; common iron oxidation stains on gravels; gravel appears to be weathered.	SM			
						22					
						24					
						26					
						28					
						30					
						32					
						34					
						36					
						38					
08:30	PVMW-6-40-41		0.1 0	34 50		30	As above; large gravel clast in liners.	SW-SM			
						32					
						34					
						36					
						38					
						40					
			0.5 0.3	50(6)		34	<u>SAND WITH SILT AND GRAVEL</u> . Very dark grayish brown [10YR 3/2]; 10-15% silt; 10-20% fine to coarse gravel and freshly broken gravel fragments up to 1.5-inches in diameter; sand (40,50,10); dry to moist.				
						36					
						38					
						40					
			0.9	27 50		40	As above; large gravels in liners.				
						42					
						44					
						46					
			0.3 0.5	50(6)		44	As above; gravel appears to be weathered.				
						46					
Total Depth = 45 feet.											



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME SVMW-207		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/28/02	DATE COMPLETED 6/28/02
BLANK CASING Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 0.5	TO 51.0	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 51.5
PERFORATED CASING Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 17.0	TOP OF CASING	GROUND SURFACE 1041.54
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS Three soil vapor monitoring zones were constructed in this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
07:40	PVMW-7-3-4		0.3	50(6)	BZ=0	2	Concrete, 5-inches.	SW-SM			
			0.5								
			0.5								
			0	80(6)							
			0.5								
07:50	PVMW-7-7.5-8.5		1		BZ=0.2	8	SAND WITH SILT AND GRAVEL. Very dark grayish brown [10YR 3/2]; 10-20% silt; 10-20% fine to coarse gravel to 1.5-inches in diameter (angular to subangular); sand (70,20,10); dry.	SW-SM			
			0.5	33							
			0.5	50(3)							
			0	75(4)							
			0								
			0								
			0.4	50(4)							
			0								
			0								
			0								
			0								
			0								
			0								

BOREHOLE AND WELL CONSTRUCTION PRICELOH GPJ EKI GDT 11/1/02





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-207	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:15	PVMW-7-20.5-22		0	30	A=0 S=17.2	20	<u>SAND WITH SILT</u> , Very dark grayish brown [10YR 3/2]; 10-20% silt; few fine gravels; fine grained sand; dry to moist. (Continued)	SW-SM			
			1.3	50		22					As above; 5-10% fine gravel and freshly broken fragments.
			0.4	27		24	As above.				
			0.5	50(3)		26					
			0.5			28					
			0	70(6)		30	<u>SAND WITH SILT AND GRAVEL</u> , Very dark grayish brown [10YR 3/2]; 10-20% silt; 10-20% fine gravel and freshly broken gravel fragments; few coarse gravels.				SW-SM
			0.5			32					
			0.5			34					
			0			36	As above.				
			0.3			38					
			0.5			40					
			0	60(6)		42	As above; abundant freshly broken gravel fragments that crumble easily with common iron oxidation stains and white powdery material that crumbles easily and does not react with acid on edges of gravel; gravel appears to be weathered.				
			0.5			44					
			0.5			46					
	0	65(8)		<u>SAND WITH SILT</u> , Brown [10YR 4/3]; 5-10% silt; few fine gravels; sand (9.5,3,2); dry to moist.	SW-SM						
	0.5										
	0.5										





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-207	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:30	PVMW-7-50.5-51.5	 + 	0.5	22 50(6)		48	SAND WITH SILT, Brown [10YR 4/3]; 5-10% silt; few fine gravels; sand (95,3,2); dry to moist. (Continued)	SW-SM			
			0			50	As above.				
			1			52	Slough at bottom of borehole.				
							Total Depth = 51.5 feet.				

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/11/02





**Erler &  
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# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME SVMW-208		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/28/02	DATE COMPLETED 6/28/02
BLANK CASING Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 0.5	TO 51.0	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 51.5
PERFORATED CASING Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 16.0	TOP OF CASING	GROUND SURFACE 1041.61
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
12:45	PVMW-8-1-2		0 0.5 0 0.1 0.5 0.5	50(6)  27 50	S=58	2 4	Concrete, 5-inches. SANDY SILT, Very dark grayish brown [10YR 3/2], 20-30% fine grained sand; dry to moist.	ML	
12:55	PVMW-8-7.5-8.5		0.1 1 0 0	33 50(4) 18 50(6)	BZ=0	6 8	SILTY SAND, Dark grayish brown [10YR 4/2], 10-20% silt; 5-10% fine gravels; soft; dry.	SM	
13:00	PVMW-8-9.5-10.5		1			10			
			0.5 0.5 0.5	60(8)		12 14 16	SAND WITH SILT AND GRAVEL, Dark grayish brown [10YR 4/2]; 5-10% silt; 10-20% gravel and freshly broken gravel fragments.	SW-SM	



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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-208	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	SAND WITH SILT AND GRAVEL. Dark grayish brown [10YR 4/2]; 5-10% silt; 10-20% gravel and freshly broken gravel fragments.	SW-SM			
			0.5	50(6)		50	As above.				
			0.5				Slough at bottom of borehole.				
			0.5			52	Total Depth = 51.5 feet.				
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME SVMW-209		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/25/02	DATE COMPLETED 7/1/02
BLANK CASING Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 0.5	TO 51.0	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 51.5
PERFORATED CASING Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 16.0	TOP OF CASING	GROUND SURFACE 1041.86
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:55	PVMW-9-1.5-2.5		0.4	17		2	Concrete, 5-inches.	SM			
			0.5	22			SILTY SAND, Very dark gray [10YR 3/1]; 20-30% silt; fine to medium grained sand; dry.				
			1	50							
			0.5	25							
			0.5	50							
			0.5				4				
10:10	PVMW-9-13-14		0	32	S=2.7	8	Poor recovery because gravel plugged liners.				
			0	50							
			0	30							
			0	50							
							10				On 25 June 2002: Drilling hole with larger augers. Pulled augers and covered hole. Continued drilling at approximately 10 feet bgs on 27 June 2002 using 8-inch augers..
							12				Color change to olive brown [10YR 4/3]; 15-25% silt; few fine gravels; sand (90,7,3); dry.
10:25	PVMW-9-16.5-17.5		0.4	25		16	As above; gravel clast measuring 6-inches long by 4-inches wide observed in cuttings.				
			1	50(6)							

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKJ.GDT 11/11/02

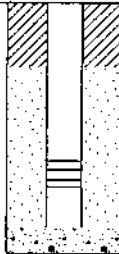


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BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-209	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:30	PVMW-9-50.5-51.5	T	0 1	60		48 50 52 54 56 58 60 62 64 66 68 70 72 74	crumble easily with common iron oxidation stains and white powdery material that crumbles easily and does not react with acid on edges of gravel; gravel appears to be weathered. <b>SAND WITH SILT</b> , Olive brown [10YR 4/3]; 5-15% silt; 5-10% fine gravel; few coarse gravels and freshly broken gravel fragments; sand (70,20,10); dry. (Continued) As above. Slough at bottom of borehole. Total Depth = 51.5 feet.	SW-SM			

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/1/102



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME SVMW-210		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (LAR)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 6/27/02	DATE COMPLETED 6/27/02
BLANK CASING Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 0.5	TO 51.0	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 51.5
PERFORATED CASING Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 17.0	TOP OF CASING	GROUND SURFACE 1042.14
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK Medium Aquarium Sand (1.18 mm - 4.75 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
13:25	PVMW-10-1-2	▽	0.1	20	BZ=0 S=0	2	SW		
		▽	0.7	50					
		▽	0	30					
		▽	0.1	50					
		▽	0.5						
		▽	0.5			4			
						6			
13:40	PVMW-10-7.5-8.5	▽	0	50(6)		8			
		▽	0.9						
		▽	0	70(6)					
		▽	0						
13:45	PVMW-10-9.5-10.5	■	0.8			10			
						12			
						14			
						16			
		▽	0.1	60(6)					
		▽	0.2						
		▽	0.5						

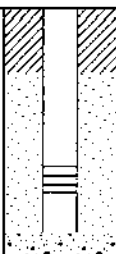


# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-210	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							<u>SAND</u> . Very dark grayish brown [10YR 3/2]; 5-10% silt; few fine gravels; sand (90,8,2); dry. (Continued)	SW			
			0.1 0.5 0.5	27 50(3)		20	As above; increasing fine gravel and freshly broken gravel fragments to 5-10%.				
						22					
						24					
			0 0.1 0.5	60(7)		26	As above.				
						28					
			0 0.3 0.5	26(6)	S=10	30	As above; decreasing gravel <5%.				
						32					
						34					
			0.4 0.5 0.5	60(6)		36	As above; few coarse gravels.				
						38					
			0 0 0			40	Poor recovery because gravel plugged liners.				
						42					
						44					
			0 0 0.4	60(6)	S=12	46	As above; few fine gravels.				



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-210	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
		I	0.5			48	SAND. Very dark grayish brown (10YR 3/2); 5-10% silt; few fine gravels; sand (90,8,2); dry.	SW			
		I	0	50(6)		50	As above.				
		I	0.5				Slough at bottom of borehole.				
		I	0.5			52	Total Depth = 51.5 feet.				
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area				BOREHOLE / WELL NAME SVMW-211	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03, Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/1/02	DATE COMPLETED 7/1/02
BLANK CASING Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 0.5	TO 51.0	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 51.5
PERFORATED CASING Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 16.0	TOP OF CASING	GROUND SURFACE 1042.26
SEAL No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand, and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
08:15	PVMW-11-3-4		0	60(6)	BZ=0.2 S=8.2	2	SM		
			0						
			0.1						
			0.5						
			0	50(6)					
08:30	PVMW-11-10.5-11.5		1			4			
08:35	PVMW-11-16-17		0	27		6			
			0	50(3)					
			0.3			8			
08:35	PVMW-11-16-17		0.2	18		10			
			1	50(6)					
						12			
						14			
						16			
08:35	PVMW-11-16-17		0	50(6)					
			0.1						
			1						





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# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-211	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							<u>SILTY SAND</u> , Dark grayish brown [10YR 3/2]; 20-30% silt; 5% fine gravel; fine grained sand; dry. (Continued)	SM			
			0 0.3 0.5	50(6)		20					
						22	Color change to dark brown [10YR 3/3]; 5-10% fine to coarse gravel (angular to subangular); sand (90,5,5); comment rock fragments.				
						24	<u>SILTY SAND WITH GRAVEL</u> , Dark brown [10YR 3/3]; 10-20% silt; 10-20% fine gravel and freshly broken gravel fragments; sand (90,5,5); dry.	SM			
			0 0.5 0.5	50(6)		26					
						28					
			0 0.2 0.5 0.5	20 50(4)	S=24	30	As above.				
						32					
						34					
			0 0.2 0.5	50(6)	A=5.9	36	As above.				
						38					
			0.4 0.5 0.5	55(6)		40	As above; few gravel fragments.				
						42					
						44	<u>SILTY SAND</u> , Dark brown [10YR 3/3]; 10-20% silt; 5% fine gravel; sand (90,5,5); dry.	SM			
			0 0.2 0.5	50(4)	S=40	46					

BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-211	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						48	SILTY SAND, Dark brown [10YR 3/3]; 10-20% silt; 5% fine gravel; sand (90,5,5); dry. (Continued)	SM			
			0.1 0.5 0.5	50(4)		50	As above; increasing medium to coarse grained sand (80,10,10). Slough at bottom of borehole. Total Depth = 51.5 feet.				
						52					
						54					
						56					
						58					
						60					
						62					
						64					
						66					
						68					
						70					
						72					
						74					

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Central Building P Area			BOREHOLE / WELL NAME SVMW-212		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03, Task 1		
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/2/02 DATE COMPLETED 7/2/02
BLANK CASING	Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 0.5	TO 51.0	BOREHOLE DIAM (inches) 8.0 TOTAL DEPTH (feet) 51.5
PERFORATED CASING	Three Vapor Implants	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927
GROUT	Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 16.0	TOP OF CASING GROUND SURFACE 1042.98
SEAL	No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	LOGGED BY Logan Hansen
FILTER PACK	#3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	CHECKED BY Earl James, RG #4544

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 20, 35, and 50 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)				
07:15	PVMW-12-1-2		0.3 1 0.1 0.5 0.5	16 50(2) 50(6)	S=11.2 BZ=0	2 4 6	Concrete, 6-inches. <u>SILTY SAND</u> , Dark grayish brown [10YR 4/2]; 15-25% silt; 5-10% fine gravel; sand (70,20,10); dry.	SM		
07:40	PVMW-12-7.5-8.5		0.4 0.9 0.2	22 50(4) 50(6)		8	Color change to very dark grayish brown [10YR 3/2]; angular to subangular gravel and freshly broken gravel fragments to 3/4-inch in diameter.			
07:50	PVMW-12-9-10.5		1.5			10	As above.			
			0.3 0.5 0.5	20 50(4)		16	<u>SILTY SAND WITH GRAVEL</u> , Very dark grayish brown [10YR 3/2]; 15-25% silt; 15-25% fine gravel; sand (90,5,5); dry.	SM		

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-212	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
						20	SILTY SAND WITH GRAVEL. Very dark grayish brown [10YR 3/2]; 15-25% silt; 15-25% fine gravel; sand (90,5,5); dry. (Continued)	SM			
			0.4	25		20	As above.				
			0.5	50(6)		22					
			0.5			24					
			0.2	50(6)		26	As above.				
			0.5			28					
			0.5			30					
			0	50(5)	S=7.4	32	As above.				
			0.5		BZ=0	34					
			0.5			36	Color change to dark brown [10YR 3/3]; few coarse gravels at bottom of sample.				
			0.2	17		38					
			0.5	50(6)		40					
			0.5			42	As above.				
			0.4	60		44					
			0.5			46					
			0	50(6)		44	SILTY SAND. Dark brown [10YR 3/3]; 15-25% silt; 5-15% fine gravel and freshly broken gravel fragments.	SM			
			0.1			46					
			0.5								

BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		PROJECT NUMBER		BOREHOLE / WELL NAME					
Price Pfister		A20034.03, Task 1		SVMW-212					
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	DEPTH (feet)				
					48	Very large gravel clast at approximately 46.5 feet bgs. It takes driller 20 minutes to drill through it. <b>SILTY SAND</b> , Dark brown [10YR 3/3]; 15-25% silt; 5-15% fine gravel and freshly broken gravel fragments. (Continued)	SM		
			0.2 0.5 0.5	50(5)	50	As above; increasing fine gravel and freshly broken gravel fragments to 15-25% (angular to subangular). Slough at bottom of borehole.			
					52	Total Depth = 51.5 feet.			
					54				
					56				
					58				
					60				
					62				
					64				
					66				
					68				
					70				
					72				
					74				



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Between Bldgs X and L				BOREHOLE / WELL NAME SVMW-213	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER A20034.03, Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 7/16/02
BLANK CASING	Sch 40 PVC Support Rod	DIAMETER (inches) 1.00	FROM (feet) 1.0	TO 50.0	DATE COMPLETED 7/16/02
PERFORATED CASING	3 6-inch long stainless steel vapor	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 9.0
GROUT	Medium Bentonite Chips (hydrated in place)		FROM (feet) 2.0	TO 15.0	TOTAL DEPTH (feet) 50
SEAL	No. 8 Bentonite Chips (hydrated in place)		FROM (feet)	TO	DATUM NAD 1927
FILTER PACK	#3 Sand (0.85 mm - 2.36 mm)		FROM (feet)	TO	TOP OF CASING
				CHECKED BY Earl James, RG #4544	GROUND SURFACE 1043.74

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 19, 34, and 49 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #10 sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
10:52	PVMW-13-2-3	+	0.3 0.5 0.5	34 50		2	Concrete, 6-inches.	SP		
			1	50		4	SAND, Brown [10YR 3/2]; 5% silt; 5% fine gravel and freshly broken gravel fragments; sand (80,10,10); dry.			
			0.5			6				
					BZ=0	8	As above; large gravel clast in sample.			
11:55	PVMW-13-8.5-9.5	+	0.5	50(6)		10				
12:05	PVMW-13-10-15	+	0.8	50(6)		12	As above.			
			0.5	50(6)		14	As above; gravel to 3-inches in diameter in cuttings.			
						16	SAND WITH SILT AND GRAVEL, Brown [10YR 4/3]; 5-15% silt; 10-20% fine to coarse gravel and freshly broken gravel fragments(subangular to subrounded); dry.	SW-SM		

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG GPJ EKI/GDT 11/11/02



**EK** Erler &  
Kalinowski,  
Inc.

BOREHOLE AND WELL CONSTRUCTION PRICELOH.GPJ EKJ.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-213	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
12:50	PVMW-13-48.5-49.5		0.4	50(6)		48	<p><u>SAND WITH SILT AND GRAVEL</u>, Brown (10YR 4/3), 5-15% silt; 10-20% fine to coarse gravel and freshly broken gravel fragments(subangular to subrounded); dry.</p> <p>As above; one large, greenish black, dense angular gravel clast (1.5-inches in diameter).</p>	SW-SM			
			0.5			50					Total Depth = 50 feet.
			0.5			52					
						54					
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						64					
						66					
						68					
						70					
	72										
	74										



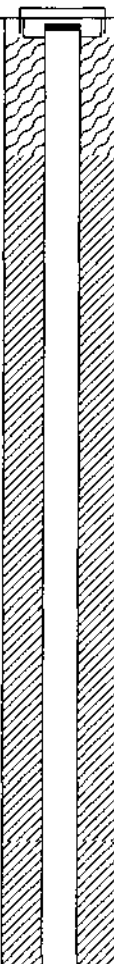


BOREHOLE AND WELL CONSTRUCTION PRICELOG.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Oil Staging Area				BOREHOLE / WELL NAME SVMW-214	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (CME 95 Rig)				PROJECT NUMBER A20034.03, Task 1	
CONDUCTOR CASING NA		DIAMETER (inches)	FROM TO	DATE STARTED 7/9/02	DATE COMPLETED 7/9/02
BLANK CASING Sch 40 PVC Support Rod		DIAMETER (inches) 1.00	FROM 0.5 TO 47.0	BOREHOLE DIAM (inches) 9.0	TOTAL DEPTH (feet) 47
PERFORATED CASING Three Vapor Implants		DIAMETER (inches)	FROM TO	DATUM NAD 1927	
GROUT Medium Bentonite Chips (hydrated in place)			FROM 2.0 TO 12.0	TOP OF CASING	GROUND SURFACE 1038.67
SEAL No. 8 Bentonite Chips (hydrated in place)			FROM TO	LOGGED BY Logan Hansen	
FILTER PACK #3 Sand (0.85 mm - 2.36 mm)			FROM TO	CHECKED BY Earl James, RG #4544	

**REMARKS** Three soil vapor monitoring zones were constructed in this well at 16, 31, and 46 feet bgs. Each zone consists of the following: a six-inch long, stainless steel vapor implant attached to Teflon tubing that extends to ground surface; one foot of #3 sand above and below the implant; one foot of #1C sand above the #3 sand; and two feet of No. 8 bentonite chips (hydrated in place) above the sand to seal the zone. Medium bentonite chips (hydrated in place) were placed between zones.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
12:30	PVMW-14-2.5-3.5		0.1	28	BZ=0	1	Asphalt, 5-inches.	SM		
			0.5	50			<b>SILTY SAND WITH GRAVEL.</b> Very dark grayish brown [10YR 3/2]; 10-20% silt; 20-30% gravel and freshly broken gravel fragments.			
			0.5			2				
			0	18		3				
			0.9	27		4				
12:35	PVMW-14-7-8		0.9	56		5				
						6				
			1	22		7				
			0	50		8				
			0	29		9				
12:45	PVMW-14-9.5-11		0.2	36		10	10-20% fine gravel and gravel fragments (subangular to subrounded); dry to moist.			
						11				
			1.5	50		12				
			32			13				
			50				As above; common iron oxidation stains on gravels; gravel appears to be weathered.			

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG GPJ EKI/GDT 11/1/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-214	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
							<u>SILTY SAND WITH GRAVEL</u> . Very dark grayish brown (10YR 3/2); 10-20% silt; 20-30% gravel and freshly broken gravel fragments. (Continued)	SM			
			0.2	38		15					
			0.5	50		16	Large gravel and gravel fragments to 1.5-inches in diameter.				
						17	As above; common iron oxidation stains on gravels; gravel appears to be weathered.				
						18	<u>SILTY SAND</u> . Very dark grayish brown (10YR 3/2); 20-30% silt; 5-10% fine to coarse gravel and freshly broken gravel fragments to 1.5-inches in diameter; sand (85,7,8); iron oxidation stains on black crystalline rock.	SM			
						19					
			0	21	S=1.0	20					
			0.2	33		21					
			0.5	39		22					
						23					
						24					
			0.2	50(6)		25	Color change to dark brown (10YR 3/3); gravel to 2-inches in diameter; common iron oxidation stains on gravels and gravel fragments crumble easily; gravel appears to be weathered.				
			0.5			26					
						27					
						28					
						29					
			0.1	25	S=5.0	30					
			0.5	50		31	As above; common iron oxidation stains on gravels; gravel appears to be weathered.				
						32					
						33					
						34					
			0	50(6)		35	As above with large, greenish black, dense angular gravel to 1.5-inches in diameter.				
						36					

BOREHOLE AND WELL CONSTRUCTION PRICE/LOG/GPJ EKI/GDT 11/11/02



# Borehole & Well Construction Log


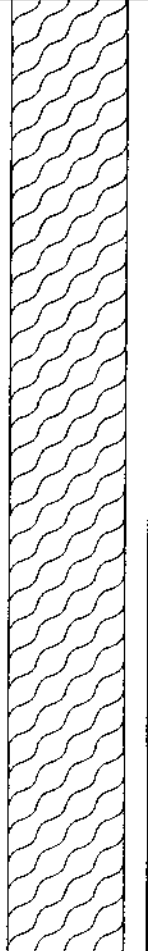
PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03, Task 1		BOREHOLE / WELL NAME		SVMW-214	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
					BZ=0	37	SILTY SAND. Very dark grayish brown [10YR 3/2]; 20-30% silt; 5-10% fine to coarse gravel and freshly broken gravel fragments to 1.5-inches in diameter; sand (85,7,8); iron oxidation stains on black crystalline rock. (Continued)	SM			
						38					
					A=1.0	39	SAND WITH SILT. Dark brown [10YR 3/3]; 5-15% silt; common gravel and freshly broken gravel fragments; sand (70,20,10).	SW-SM			
						40					
		I	0.5	50(6)		41					
						42					
					A=13.6	43					
						44					
		I	0.3	31		45	As above; 5-10% fine gravel; gravel appears weathered.				
		I	0.5	50		46					
						47	Total Depth = 47 feet.				
						48					
						49					
						50					
						51					
						52					
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						56					
						57					
						58					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A1	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/27/02	DATE COMPLETED 8/27/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.5	TOP OF CASING	GROUND SURFACE 1035.78
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
07:30	A1-5-5.5	Δ	0.2 0.5	38 50(6)	BZ=0.3 S=6.1	2 4 6 8 10 12 14 16	Concrete, 7-inches.  SAND WITH GRAVEL. Olive gray [5Y 4/2], 70% sand (fn: 20, md: 60, cs: 20); fine to coarse gravel is angular to subrounded, coarse gravel up to 4-inches, dense, moist, odor noticed. Strong chemical odor noticed from auger cuttings.	SW		
07:39	A1-10-10.5	Δ	0.2 0.5	32 60(6)	S=3.8	10 12 14 16	Increase in fine to medium gravel up to 50% of total gravel content, coarse gravel content decreasing, low plasticity.			
07:45	A1-15-15.5	Δ	0.2 0.5	41 50(6)	S=6.3	14 16	Color change to dark olive gray [5Y 3/2] inferred, medium plasticity, increasing fine grained sand component (fn: 60, md: 20, cs: 20).			

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A1	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
07:50	A1-19.5-20	⊗	0.5	75(6)	S=10.1	20	<b>SAND WITH GRAVEL.</b> Olive gray [5Y 4/2], 70% sand (fn: 20, md: 60, cs: 20); fine to coarse gravel is angular to subrounded, coarse gravel up to 4-inches, dense, moist, odor noticed. (Continued) Color change to olive [5Y 4/3] inferred, gravel medium grained, subangular to subrounded, 20% of gravel is well sorted and fine.	SW			
						22					
						24					
07:57	A1-25-25.5	⊗	0.2 0.5	30 63(6)	S=7.3	26	Color change to olive gray [5Y 4/2] inferred, increasing fine grained sand component (fn: 70, md: 20, cs: 10), possible fines <5%, dissolved sediment shows possible slight sheen.				
						28					
						30					
08:27	A1-30-30.5	⊗	0.4 0.5	18 60(6)	S=16.4	32	Color change to olive [5Y 4/3] inferred, increasing fine grained sand component (fn: 80, md: 10, cs: 10), possible fines <5%.				
						34					
						36					
						38	As above.				
						40					
						42					
08:39	A1-40-40.5	⊗	0.4 0.5	27 50(6)	S=14.5	44	Increasing fine grained sand component (fn: 90, md: 5, cs: 5), dense, moist.				
						46					
08:49	A1-45-45.5	⊗	0.3 0.5	27 50(6)			Total Depth = 45.5 feet.				

BOREHOLE AND WELL CONSTRUCTION PLZB.GPJ EKLSDT 11/1/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A2	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/27/02	DATE COMPLETED 8/27/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.5	TOP OF CASING	GROUND SURFACE 1035.86
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
12:49	A2-1-1.5	⊗	0.5		S=11.6	2	Concrete, 5-inches. SAND, Dark olive brown [2.5Y 3/3], sand (fine: 80, medium: 10, coarse: 10), medium to coarse gravel <10%, loose, dry to moist.	SP		
11:25	A2-4.5-5	⊗	0.5	62(6)	S=8.6	4	SAND WITH GRAVEL, Dark grayish brown [2.5Y 4/2], fine sand component decreasing (fn: 60, md: 30, cs: 10), 45% fine to coarse gravel, coarse gravel component 3 to 4-inches: 90% of total gravel fraction, loose, dry.	SW		
11:31	A2-10-10.5	⊗	0.2 0.5	37 50(6)	S=7.0	10	As above; color change to very dark gray [2.5Y 4/3] inferred.			
11:41	A2-15-15.5	⊗	0.3 0.5	22 60(6)	S=8.8	14 16	As above.			

BOREHOLE AND WELL CONSTRUCTION PE-JZB-GPJ EKI.GDT 11/1/02





# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A2	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
11:47	A2-19.5-20	⊗	0.5	75(6)	S=14.5	20	<u>SAND WITH GRAVEL</u> , Dark grayish brown [2.5Y 4/2], fine sand component decreasing (fn: 60, md: 30, cs: 10), 45% fine to coarse gravel, coarse gravel component 3 to 4-inches: 90% of total gravel fraction, loose, dry. (Continued) Color change to olive [5Y 4/4] inferred, fine sand component increasing (fn: 70, md: 10, cs: 20), 45% fine gravel component increasing, loose, dry.	SW			
						22					
						24					
11:58	A2-24.5-25	⊗	0.5	40(6)	S=8.6	26	As above.				
						28	Gravelly zone? slower drilling.				
						30					
						32					
						34					
12:12	A2-29.5-30	⊗	0.5	65(6)	S=25.0	36	Coarse gravel component increasing (fn: 20, md: 20, cs: 60), medium sand component increasing (fn: 20, md: 60, cs: 20), loose, dry.				
						38					
						40					
						42					
						44					
12:20	A2-35-35.5	⊗	0.4 0.5	28 50(6)	S=25.1	46	As above.				
						48					
						50					
						52					
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# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A3	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/27/02	DATE COMPLETED 8/27/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.5	TOP OF CASING	GROUND SURFACE 1035.85
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
10:54	A3-1-1.5	⊗	0.5		BZ=2.5 S=16.3	2	Concrete, 4.5-inches. SAND, Dark olive brown [2.5Y 3/3], sand (fn: 80, md: 10, cs: 10), <5% fine gravel, dry to moist.	SP		
09:29	A3-5-5.5	⊗	0.2 0.5	31 50(6)	S=8.9	4	SAND WITH GRAVEL, no color change, sand (fn: 70, md: 15, cs: 15), well graded gravel up to 3-inches (fn: 50, md: 20, cs: 30), medium plasticity, dense, moist, slight chemical odor noticed.	SW		
09:43	A3-10-10.5	⊗	0.4 0.5	38 75(6)	S=21.8	10	Dark grayish brown [2.5Y 4/2], slight color change inferred, fine gravel component increasing [fn: 70, md: 20, cs: 10], loose, dry.			
09:49	A3-15-15.5	⊗	0.5 0.5	42 50(6)	S=25.4	14	SAND WITH SILT AND GRAVEL, Olive brown [2.5Y 4/4], fines <10%, sand (fn: 40, md: 40, cs: 20), 20% fine gravel (fn: 80, md: 10, cs: 10), loose, dry to moist, slight chemical odor noticed.	SP-SM		

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A3	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:55	A3-20-20.5	⊗	0.5 0.5	22 50(6)	S=30.1	20	<u>SILTY SAND</u> . Olive brown [2.5Y 4/3], silt 10-20%, fine to medium gravel 10% (fn: 80, md: 20, cs: 0), sand (fn: 80, md: 10, cs: 10), low plasticity, dry to moist.	SP-SM SM			
10:03	A3-25-25.5	⊗	0.5 0.5	37 50(6)	S=15.5	22 24	<u>SAND</u> . Dark grayish brown [2.5Y 4/2], <5% fines, 10% gravel (fn: 20, md: 20, cs: 60), sand (fn: 20, md: 40, cs: 40), loose, dry to moist.	SW			
10:14	A3-30-30.5	⊗	0.4 0.5	29 50(6)	S=27.8	26 28	<u>SAND WITH SILT AND GRAVEL</u> . Olive gray [5Y 4/2], 10% silt, <15% gravel fine to medium grained, sand (fn:40, md: 30, cs: 30), low plasticity, dry to moist.	SP-SM			
10:24	A3-40-40.5	⊗	0.5 0.5	50 50(6)	S=25.8	30 32 34 36 38 40	Color change inferred to dark yellowish brown [10YR 4/4], <10% silt, 10% fine to medium gravel, fine sand component increasing (fn: 70, md: 10, cs: 20), poorly graded, loose, dry.				
10:36	A3-45-45.5	⊗	0.5 0.5	37 50(6)	S=25.2	42 44 46	As above.				
Total Depth = 45.5 feet.											

BOREHOLE AND WELL CONSTRUCTION PF12B.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME <b>A4</b>	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME <b>Price Pfister</b>	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER <b>A20034.03 Task 1</b>	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/27/02	DATE COMPLETED 8/27/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.5	TOP OF CASING	GROUND SURFACE 1035.84
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	



## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
14:03	A4-4.5-5	∅	0.5	80(6)	BZ=0.3	2	Concrete, 4.5-inches.	SW		
						4	<b>SAND WITH GRAVEL.</b> Dark grayish brown [2.5Y 4/2], sand (fn: 60, md: 30, cs: 10), coarse gravel to 4-inches (fn: 30, md: 20, cs: 50), <5% fines, loose, dry.			
						6				
14:11	A4-10-10.5	∅	0.5	48	S=13.5	8	Color change inferred to light olive brown [2.5Y 4/3], increasing fine sand component (fn: 80, md: 10, cs: 10).	SW		
			0.5	70(6)		10				
						12				
14:18	A4-15-15.5	∅	0.5	40	S=12.0	14	Color change inferred to dark grayish brown [2.5Y 4/2], fine gravel component increasing (fn: 40, md: 20, cs: 40).	SW		
			0.5	50(6)		16				

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A4	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
14:24	A4-20-20.5	⊗	0.1 0.5	32 60(6)	S=14.0	20	<u>SAND WITH GRAVEL</u> . Dark grayish brown [2.5Y 4/2], sand (fn: 60, md: 30, cs: 10), coarse gravel to 4-inches (fn: 30, md:20, cs: 50), <5% fines, loose, dry. (Continued) Coarse gravel increases in 6-inch zone inferred from drill cuttings. Noticed sheen when sediment dissolved in water, strong chemical odor noticed, no plasticity, loose, dry.	SW			
						22					
						24					
14:37	A4-25-25.5	⊗	0.4 0.5	38 60(6)	S=24.4	26	Gravel content decreases to 20-30%.				
						28					
						30					
14:45	A3-29.5-30	⊗	0.5	75(6)	S=28.1	32	As above.				
						34					
						36					
						38	Color change to olive brown [2.5Y 4/3] inferred, fine sand component increasing (fn: 75, md: 0, cs: 25), strong chemical odor noticed.				
15:01	A4-40-40.5	⊗	0.5 0.5	22 55(6)	S=36.7	40					
						42					
						44	As above.				
15:11	A4-45-45.5	⊗	0.5 0.5	25 50(6)	S=27.9	46					
Total Depth = 45.5 feet.											

BOREHOLE AND WELL CONSTRUCTION PF128.GPJ EK1.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAMEA5	
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister	
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1	
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM TO	DATE STARTED8/26/02	DATE COMPLETED8/26/02
BLANK CASINGNA		DIAMETER (inches)	FROM TO	BOREHOLE DIAM (inches)8.0	TOTAL DEPTH (feet)26
PERFORATED CASINGNA		DIAMETER (inches)	FROM TO	DATUMNAD 1927	
GROUTHigh-percent-solids Bentonite (hydrated in drum)		FROM (feet)0.0	TO26.0	TOP OF CASING	GROUND SURFACE1035.85
SEALNA		FROM (feet)	TO	LOGGED BYJonathan Boxerman	
FILTER PACKNA		FROM (feet)	TO	CHECKED BYEarl James, RG #4544	

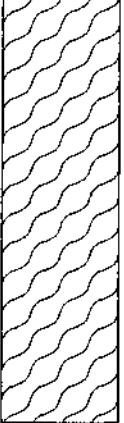
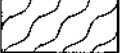
REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:10	A5-1-1.5	⊗	0.5		BZ=0.3 S=14.2	2	Concrete, 5-inches. SAND, Dark greenish gray [5GY 4/1], 10% fine to coarse gravel, chemical odor noticed.	SP		
08:15	A5-5-5.5	⊗	0.1 0.5	27 50(6)		4	SAND WITH GRAVEL, Yellowish brown [10YR 5/4], fine to medium gravel angular to subangular, dense to very dense, dry.	SW		
08:25	A5-9-5-10	⊗	0.5 0.4	18 50(6)	S=0.3	10				
08:35	A5-14-5-15	⊗	0.5 0	30 50(6)		14	As above: sample liner shoe plugged by rock.			
						16				

BOREHOLE AND WELL CONSTRUCTION PF\JZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A5	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:42	A5-20-20.5	T Δ	0.3 0.5	37 70(6)	S=2.2	20	<p><u>SAND WITH SILT AND GRAVEL</u>, Yellowish brown [10YR 5/6], 80% fine to medium grained sand, 10-20% fine to coarse gravel, 10% silt, dry.</p>	SW-SM			
						22					
						24					
08:50	A5-25.5-26	T Δ	0.5 0.5	35 50(6)	S=2.6	26	<p><u>SAND WITH GRAVEL</u>, 70% sand, fine sand component decreasing, &lt;5% silt, dry to moist.</p>	SW			
						26	Total Depth = 26 feet.				
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME <b>A6</b>	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME <b>Price Pfister</b>	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER <b>A20034.03 Task 1</b>	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/26/02	DATE COMPLETED 8/26/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 25.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM 0.0	TO 25.5	TOP OF CASING	GROUND SURFACE 1035.81
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	


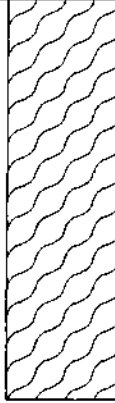
## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:30	A6-5-5.5	T	0.5 0.5	30 75(6)	S=1.0		Concrete, 4.5-inches.			
						2	SAND, Dark greenish gray [5GY 4/1], fine grained sand and gravel.	SP		
						4	SAND WITH GRAVEL, Brown [10YR 4/3], sand component (fn: 60, md: 30, cs: 10), 10-25% gravel, fine to coarse gravel, dry to moist, slight chemical odor noticed.	SW		
09:45	A6-10-10.5	T	0 0.5	50 68(6)		6				
						8				
						10	SAND WITH SILT AND GRAVEL, Dark brown [10YR 3/3], sand component (fn: 80, md: 10, cs: 10), 10-20% fine to coarse gravel, 5-15% silt, loose, dry.	SP-SM		
10:00	A6-15-15.5	T	0.5 0.5	25 50(6)	S=0.7	12				
						14	SAND WITH GRAVEL, Dark yellowish brown [10YR 4/4], sand component (fn: 60, md: 30, cs: 10), 10-20% fine to coarse angular to subangular gravel, dry to moist.	SW		
						16				

BOREHOLE AND WELL CONSTRUCTION PEJZB GPJ EKI GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A6	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
10:05	A6-19.5-20	Δ	0.5 0.3	45 65(6)	S=0.5	20	<p><b>SAND WITH GRAVEL.</b> Dark yellowish brown [10YR 4/4], sand component (fn: 60, md: 30, cs: 10), 10-20% fine to coarse angular to subangular gravel, dry to moist. (Continued) As above; sample liner shoe plugged by rock.</p>	SW			
10:15	A6-25-25.5	Δ	0.5 0.5	50 60(6)	S=0.5	26					
						22	<p>Color change to yellowish brown [10YR 5/4] inferred, fines increasing to &lt;5%, fine sand component increasing (fn: 80, md: 10, cs: 10). Total Depth = 25.5 feet.</p>				
						24					
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PFJ25.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAMEA7		
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister		
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1		
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED8/26/02	DATE COMPLETED8/26/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)8.0	TOTAL DEPTH (feet)25.5
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927	
GROUTHigh-percent-solids Bentonite (hydrated in drum)			FROM (feet)	0.0	TO	25.5
SEALNA			FROM (feet)	TO	LOGGED BYJonathan Boxerman	
FILTER PACKNA			FROM (feet)	TO	CHECKED BYEarl James, RG #4544	

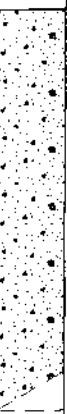
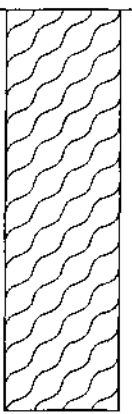
## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
14:00	A7-1-1.5	Δ	0.5		S=2.3	2	Concrete, 4.5-inches.	SP		
						4	SAND WITH GRAVEL, Brown [10YR 4/3], 10-20% fine to medium gravel, subangular to subrounded, sand (fn: 90, md: 5, cs: 5), moist.	SW		
13:10	A7-5-5.5	Δ	0.4 0.5	30 50(6)	S=1.2	6	SAND WITH GRAVEL, Dark yellowish brown [10YR 4/4], sand (fn: 60, md: 20, cs: 20), 15-30% gravel fine to coarse subangular to subrounded, dry to moist.			
13:15	A7-9.5-10	Δ	0.5 0.4	50 70(6)	S=1.3	10	Gravel content increasing to 40%, coarse gravel component 80%, angular gravel 3 to 5-inches, moisture content increasing.			
						12	Near refusal.			
13:25	A7-14.5-15	Δ	0.5 0.3	50 70(6)	S=1.8	14	40% gravel, gravel size decreases to fine to medium, dry to moist.			
						16	Gravel content 10-30%.			

BOREHOLE AND WELL CONSTRUCTION PFJZB-GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A7	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:35	A7-20-20.5	⌵	0.4 0.5	40 60(6)	S=1.4	20	<p><b>SAND WITH GRAVEL.</b> Dark yellowish brown [10YR 4/4], sand (fn: 60, md: 20, cs: 20), 15-30% gravel fine to coarse subangular to subrounded, dry to moist. (Continued)</p> <p>Medium grained sand component increasing (fn: 30, md: 60, cs: 10), moist.</p>	SW			
13:40	A7-25-25.5	⌵	0.1 0.5	25 50(6)	S=1.5	26	<p>Color change to dark olive brown [2.5Y 3/3] inferred, medium to coarse sand components increasing (fn: 10, md: 40, cs: 50), fine to coarse gravel content 10-30%.</p> <p>Total Depth = 25.5 feet.</p>				
						22					
						24					
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					


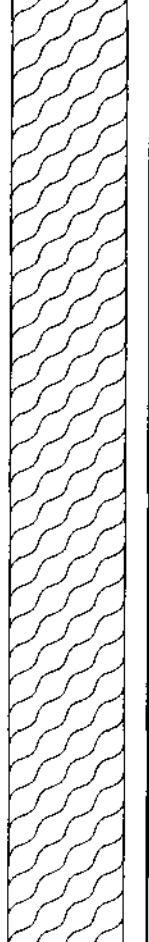

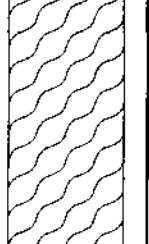
BOREHOLE AND WELL CONSTRUCTION PFJ28.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A8	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA		DIAMETER (inches)	FROM TO (feet)	DATE STARTED 8/26/02	DATE COMPLETED 8/26/02
BLANK CASING NA		DIAMETER (inches)	FROM TO (feet)	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 25.5
PERFORATED CASING NA		DIAMETER (inches)	FROM TO (feet)	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)			FROM TO (feet) 0.0 25.5	TOP OF CASING	GROUND SURFACE 1035.86
SEAL NA			FROM TO (feet)	LOGGED BY Jonathan Boxerman	
FILTER PACK NA			FROM TO (feet)	CHECKED BY Earl James, RG #4544	

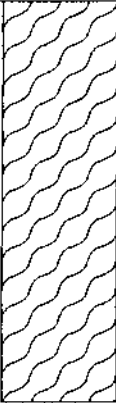
## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
11:25	A8-4.5-5	Δ	0.5	60(6)	S=2.0	2	Concrete, 4.5-inches, concrete pulverized with bulldog auger. SAND WITH GRAVEL, Yellowish brown [10YR 5/4], sand (fn: 60, md: 20, cs: 20), 20% gravel fine to coarse, moist. SAND WITH GRAVEL, Brown [10YR 5/3], sand (fn: 70, md: 30, cs: 10), 40% gravel fine to coarse, dry to moist.	SP SW		
11:35	A8-10-10.5	Δ	0.5	75(6)	S=0.4	10	As above.			
11:45	A8-14.5-15	Δ	0.3	37	S=0.7	14	SAND WITH GRAVEL, Dark yellowish brown [10YR 4/4], sand (fn: 80, md: 10, cs: 10), 20-30% gravel, fine to medium grained gravel, subangular to subrounded, formation appears ground up (3% white flecks and possible fault gouge), dry to moist.	SP		

BOREHOLE AND WELL CONSTRUCTION PFJ28.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A8	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
11:50	A8-20-20.5	T X	0.4 0.5	50 55	S=1.0	20	<b>SAND WITH GRAVEL.</b> Dark yellowish brown [10YR 4/4], sand (fn: 80, md: 10, cs: 10), 20-30% gravel, fine to medium grained gravel, subangular to subrounded, formation appears ground up (3% white flecks and possible fault gauge), dry to moist. (Continued) As above.	SP			
						22					
						24					
11:55	A8-25-25.5	T X	0.5 0.5	53 67	S=0.4	26	As above. Total Depth = 25.5 feet.				
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

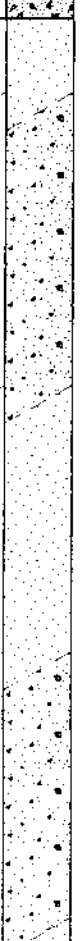
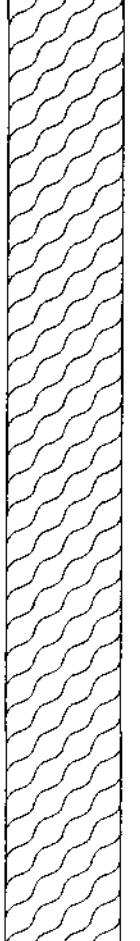
BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKL.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A9	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/26/02	DATE COMPLETED 8/26/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 25.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet)	0.0 TO 25.5	TOP OF CASING	GROUND SURFACE 1035.85
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

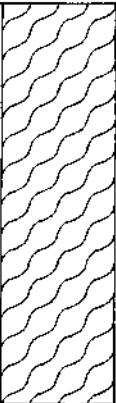
## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
14:35	A9-5-5.5	I X	0.5 0.5	25 50(6)	S=1.1 S=2.3	2	Concrete, 4.5-inches.	SP		
						4	SAND. Black [10YR 2/1], sand (fn: 80, md: 10, cs: 10), 10% gravel fine to subrounded to 1-inch, moist.	SW		
						6	SAND WITH GRAVEL. Brown [10YR 4/3], sand well graded (fn: 60, md: 20, cs: 20), 15% gravel fine to coarse, subrounded to subangular, dense.	SW		
14:45	A9-10-10.5	I X	0.4 0.5	25 75(6)	S=2.8	8	SAND WITH GRAVEL. sand (fn: 80, md: 10, cs: 10), 20% gravel, <5% fines, dry.	SP		
						10				
						12				
14:55	A9-15-15.5	I X	0.1 0.5	50 70(6)	S=0.7	14	SAND WITH GRAVEL. no color change, sand (fn: 50, md: 25, cs: 25), gravel size increasing, no fines.	SW		
						16				

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/1/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A9	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
15:05	A9-20-20.5	⌈ X ⌋	0.1 0.5	20 50(6)	S=1.4	20	<p><u>SAND WITH GRAVEL</u>, no color change, sand (fn: 80, md: 10, cs: 10), small fraction of gravel is angular.</p>	SP			
15:15	A9-25-25.5	⌈ X ⌋	0.2 0.5	37 50(6)	S=1.5	22					
						24	<p>No color change, fine sand component decreasing (fn: 20, md: 50, cs: 30), no coarse gravel, fine sand to fine gravel.</p> <p>Total Depth = 25.5 feet.</p>				
						26					
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PE126.GPJ, EK1.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A10	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/28/02	DATE COMPLETED 8/28/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.5	TOP OF CASING	GROUND SURFACE 1035.86
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
11:04	A10-1-1.5	⊗	0.5		BZ=0.1 S=80.9	2	Concrete, 4-inches.	SP		
11:12	A10-5.5-6	⊗	0.1 0.5 0.5	18 30 50(6)	S=29.7	4 6	SAND, Dark gray [2.5Y 4/1], sand (fn: 90, md: 5, cs: 5), <5% gravel, loose, dry to moist, strong odor noticed.	SW		
11:18	A10-10-10.5	⊗	0.1 0.5	30 50(6)	S=26.5	10	SAND WITH GRAVEL, no color change, sand (fn: 50, md: 25, cs: 25), increasing gravel content to 10-20%, coarse, subangular gravel to 3-inches, loose, dry to moist.			
11:24	A10-15-15.5	⊗	0.2 0.5	35 50(6)	S=11.0	14 16	Gravel increases to 30-40%.  Color change inferred to olive brown [2.5Y 4/3], medium to coarse grained sand component increasing (fn: 20, md: 40, cs: 40), fine to coarse gravel content increases to <50%, loose, dry.			

BOREHOLE AND WELL CONSTRUCTION PF-JZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE AND WELL CONSTRUCTION PEJZE.GPJ EKI.GDT 11/11/02

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A10	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
11:31	A10-20-20.5	⊗	0.1 0.5	25 50(6)	S=9.8	20	<u>SAND WITH GRAVEL</u> , no color change, sand (fn: 50, md: 25, cs: 25), increasing gravel content to 10-20%, coarse, subangular gravel to 3-inches, loose, dry to moist. (Continued) Coarse grained sand component increasing (fn: 10, md: 20, cs: 70), fine grained gravel increasing, moist.	SW			
11:38	A10-24.5-25	⊗	0.5	50(6)	S=29.2	22 24 26 28	Color change inferred from drill cuttings to light olive brown [2.5Y 5/4]. Fine grained sand component increasing (fn: 40, md: 40, cs: 20), dry.				
11:44	A10-30-30.5	⊗	0.1 0.5	37 50(6)	S=13.9	30 32 34 36 38	Fine grained sand component decreasing (fn: 20, md: 40, cs: 40), <50% fine to coarse gravel, dry.  Color change inferred from drill cuttings to olive brown [2.5Y 4/3].				
11:57	A10-40-40.5	⊗	0.1 0.5	29 50(6)	S=7.0	40 42 44	Sand (fn: 10, md: 50, cs: 40), dense, dry, no noticeable odor.				
12:04	A10-45-45.5	⊗	0.2 0.5	42 50(6)	S=6.7	46	As above. Total Depth = 45.5 feet.				



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A11	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/26/02	DATE COMPLETED 8/26/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.0	TOP OF CASING	GROUND SURFACE 1035.85
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
17:15	A11-1-1.5	∅	0.5			2	Concrete, 6-inches.	SP		
							SAND, Very dark brown [10YR 2/2], sand (fn: 80, md: 10, cs: 10), moist.			
						4	SAND WITH GRAVEL, no color change, coarse grained sand content increasing (fn: 20, md: 40, cs: 40), angular coarse gravel increasing, dry to moist, slight chemical odor noticed.	SW		
15:38	A11-5-5.5	∅	0.5	17	S=17.1	6	Color change to brown [10YR 4/3].			
			0.5	50(6)		8				
15:50	A11-10-10.5	∅	0.1	42		10	As above; dry to moist.			
			0.5	50(6)		12				
						14				
16:00	A11-15-15.5	∅	0.1	30	S=11.2	16	Color change inferred from drill cuttings to dark olive brown [2.5Y 3/3], medium grained sand component increasing (fn: 0, md: 80, cs: 20), angular to subangular gravel, moist.			
			0.5	50(6)						

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GOT 11/11/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A11	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
16:10	A11-19.5-20	⊗	0.5	70(6)	S=14.1	20	<u>SAND WITH GRAVEL</u> , no color change, coarse grained sand content increasing (fn: 20, md: 40, cs: 40), angular coarse gravel increasing, dry to moist, slight chemical odor noticed. (Continued) As above.	SW			
						22					
						24					
06:15	A11-24.5-25	⊗	0.5	75(6)	S=9.8	26	As above.				
						28					
						30					
16:25	A11-29.5-30	⊗	0.5	38	S=11.9	32	As above.				
						34					
						36					
		⊞	3.5 0.5	50 68	S=29.2	38	Color change to olive brown [2.5Y 4/3], sand (fn: 10, md: 70, cs: 20), angular gravel, dry to moist, odor noticed.				
						40					
						42					
		⊞	0.3 0.5	35 70	S=28.2	44	<u>SAND WITH SILT AND GRAVEL</u> , Light olive brown [2.5Y 5/3], fine sand component increasing (fn: 70, md: 10, cs: 20), 10-20% gravel, fine, subangular to subrounded, 10% silt, dry.	SW-SM			
						46					
17:00	A11-44.5-45	⊗	0.5	75(6)	S=20.1		As above. Total Depth = 45 feet.				

BOREHOLE AND WELL CONSTRUCTION PF128 GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A12	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/28/02	DATE COMPLETED 8/28/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 45.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 45.5	TOP OF CASING	GROUND SURFACE 1035.87
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:28	A12-1-1.5	⊗	0.5		BZ=0.0 S=14.4	2	Concrete, 4-inches. SAND. Very dark gray [2.5Y 3/1], sand (fn: 30, md: 30, cs: 40), <15% fine gravel, angular to subrounded, moist.	SP		
08:01	A12-5-5.5	⊗	0.3	30 50(6)	S=13.2	4	SAND WITH GRAVEL, Light olive brown [2.5Y 5/3], coarse grained sand content increasing (fn: 30, md: 10, cs: 60), 45% fine to coarse gravel, <5% fines, slight chemical odor noticed.	SW		
08:09	A12-10-10.5	⊗	0.2 0.5	30 75(6)	S=10.2	10	Poor recovery, coarse gravel angular to subangular, fine gravel subrounded to angular, slight chemical odor noticed.			
08:14	A12-15-15.5	⊗	0.1 0.5	25 50(6)	S=9.3	14	Color change to olive brown [2.5Y 4/3], fine sand component increasing (fn: 50, md: 25, cs: 25), fine gravel component increasing (fn: 50, md: 30, cs: 20), loose, dry.			
						16	As above.			

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A12	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:22	A12-20-20.5	⌵	0.2 0.5	32 60(6)	S=6.3	20	<u>SAND WITH GRAVEL</u> , Light olive brown [2.5Y 5/3], coarse grained sand content increasing (fn: 30, md: 10, cs: 60), 45% fine to coarse gravel, <5% fines, slight chemical odor noticed. (Continued) As above.	SW			
						22					
						24					
08:29	A12-25-25.5	⌵	0.1 0.5	25 50(6)	S=11.0	26	Slight color change to olive brown [2.5Y 4/4], medium grained sand component increasing (fn: 20, md: 40, cs: 40), 20-30% gravel, rounded to subrounded, fine to coarse gravel to 1-inch.				
						28					
						30					
08:40	A12-30-30.5	⌵	0.2 0.5	30 50(6)	S=8.3	32	Color change to light olive brown [2.5Y 5/4].				
						34					
						36					
						38					
						40	Increased zone of gravel to 45%.				
09:00	A12-40-40.5	⌵	0.1 0.5	25 50(6)	S=13.6	42	As above.				
						44					
						46					
09:07	A12-45-45.5	⌵	0.2 0.5	22 50(6)	S=12.1		Total Depth = 45.5 feet.				


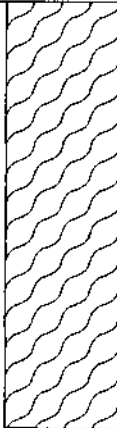
BOREHOLE AND WELL CONSTRUCTION PFJZB GPJ EKI GDT 11/11/02



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St. Pacoima, CA - Building A				BOREHOLE / WELL NAME <b>A13</b>	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME <b>Price Pfister</b>	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER <b>A20034.03 Task 1</b>	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/28/02 DATE COMPLETED 8/28/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0 TOTAL DEPTH (feet) 8
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927
GROUT	High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 8.0	TOP OF CASING GROUND SURFACE 1035.83
SEAL	NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544

REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:38	A13-4.5-5	X	0.4	75(6)	S=14.3	2	Concrete, 4.5-inches. SAND, Very dark grayish brown [2.5Y 3/2], sand (fn: 80, md: 10, cs: 0), <5% gravel, <5% fines, loose, moist to very moist, no odor noticed.	SP		
						4	SAND WITH GRAVEL, Olive brown [2.5Y 4/3], sand (fn: 60, md: 20, cs: 20), 20-30% gravel angular to subrounded, loose, dry to moist, no odor noticed.			
						6				
						8	Total Depth = 8 feet.			
						10				
						12				
						14				
						16				

BOREHOLE AND WELL CONSTRUCTION PFJZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building A				BOREHOLE / WELL NAME A14	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 8/27/02	DATE COMPLETED 8/27/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 8.0	TOTAL DEPTH (feet) 30.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)		FROM (feet) 0.0	TO 30.5	TOP OF CASING	GROUND SURFACE 1035.84
SEAL NA		FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

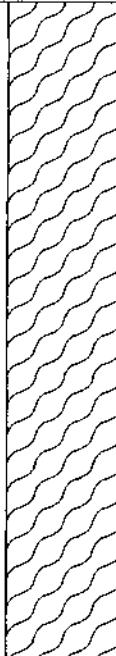
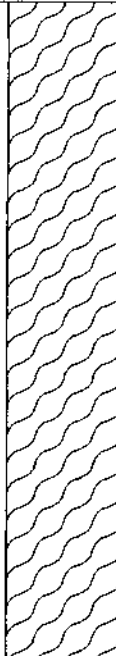
REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
16:02	A14-5-5.5	T X	0.1 0.5	24 70(6)	BZ=0.4 S=11.0	2 4 6 8 10 12 14 16	Concrete, 6-inches. GRAVEL WITH SAND. Dark grayish brown [2.5Y 4/2], 45% gravel (fn: 30, md: 20, cs: 50) to 3-inches, sand (fn: 50, md: 30, cs: 20), <5% fines, dry to moist.	SW		
16:09	A14-10-10.5	T X	0.3 0.5	32 50(6)	S=9.3	10 12 14 16	As above.			
16:16	A14-15-15.5	T X	0.3 0.5	47 50(6)	S=8.5	16	Color change to olive brown [2.5Y 4/4], fine sand increasing (fn: 60, md: 20, cs: 20), loose, dry.			

BOREHOLE AND WELL CONSTRUCTION PF/IZB.GPJ EKI.GDT 11/1/02



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		A14	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
16:23	A14-19.5-20	Δ	0.5	75(6)	S=10.9	20	<p><u>GRAVEL WITH SAND</u>, Dark grayish brown [2.5Y 4/2], 45% gravel (fn: 30, md: 20, cs: 50) to 3-inches, sand (fn: 50, md: 30, cs: 20), &lt;5% fines, dry to moist. (Continued)</p> <p>Slight color change to olive brown [2.5y 4/3], angular to subangular gravel.</p>	SW			
16:32	A14-25-25.5	Δ	0.2 0.5	30 50(6)	S=17.1	22 24 26	As above.				
16:46	A14-30-30.5	Δ	0.2 0.5	38 60(6)	S=3.8	28 30	<p>Slight color change to light olive brown [2.5Y 5/4].</p> <p>Total Depth = 30.5 feet.</p>				
						32 34 36 38 40 42 44 46					

BOREHOLE AND WELL CONSTRUCTION PF/JZB.GPJ EKI.GDT 11/11/02



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME MS-1	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/5/02	DATE COMPLETED 12/5/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 16
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviropug Bentonite chips medium (hydrated in place)		FROM (feet) 0.0	TO 16.0	TOP OF CASING	GROUND SURFACE 1042.23
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS Borehole located in Machine Shop and Maintenance Area next to sump (3-feet deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
15:20	MS1-1.5-2	Δ	0.4	50		2	Concrete, 7-inches.			
							Baselock, 2-inches.			
							SAND WITH SILT AND GRAVEL, Brown [10YR 4/3], 40-50% fine to coarse gravel to 4-inches in diameter (subangular), 5-10% fines, dry.	SP		
15:25	MS1-5-6	Δ	0.7	65		6				
15:35	MS1-10-11	Δ	0.8	70		10	As above.			
15:45	MS1-15-15.5	Δ	0.5			16	Total Depth = 16 feet.			

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKLGD1 1/3/03



# Borehole & Well Construction Log



<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P				<b>BOREHOLE / WELL NAME</b> MS-1			
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979				<b>PROJECT NAME</b> Price Pfister			
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)				<b>PROJECT NUMBER</b> A20034.03 Task 1			
<b>CONDUCTOR CASING</b> NA		<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b> 12/5/02	<b>DATE COMPLETED</b> 12/5/02	
<b>BLANK CASING</b> NA		<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>BOREHOLE DIAM (inches)</b> 7.8	<b>TOTAL DEPTH (feet)</b> 16	
<b>PERFORATED CASING</b> NA		<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATUM</b> NAD 1927		
<b>GROUT</b> Enviropug Bentonite chips medium (hydrated in place)				<b>FROM (feet)</b> 0.0	<b>TO</b> 16.0	<b>TOP OF CASING</b>	<b>GROUND SURFACE</b> 1042.23
<b>SEAL</b> NA			<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen		
<b>FILTER PACK</b> NA			<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544		

**REMARKS** Borehole located in Machine Shop and Maintenance Area next to sump (3-feet deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
15:20	MS1-1.5-2	⌵	0.4	50		2	Concrete, 7-inches.			
						4	Baselock, 2-inches.			
						6	SAND WITH SILT AND GRAVEL. Brown [10YR 4/3], 40-50% fine to coarse gravel to 4-inches in diameter (subangular), 5-10% fines, dry.	SP		
15:25	MS1-5-6	⌵	0.7	65		8				
						10	As above.			
15:35	MS1-10-11	⌵	0.8	70		12				
						14				
15:45	MS1-15-15.5	⌵	0.5			16	Total Depth = 16 feet.			



# Borehole & Well Construction Log



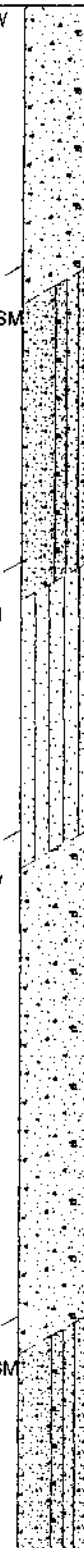
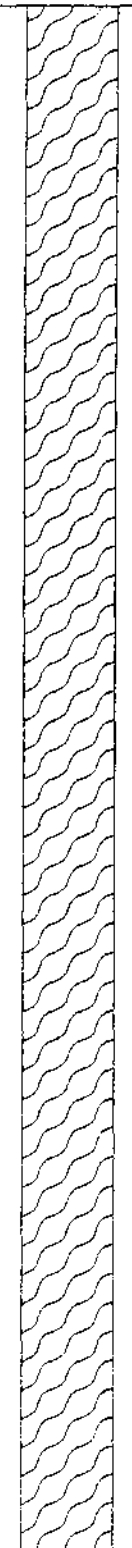
BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-1		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING NA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 11/26/02	DATE COMPLETED 11/26/02
BLANK CASING NA		DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 10.0	TOTAL DEPTH (feet) 55
PERFORATED CASING NA		DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT High-percent-solids Bentonite (hydrated in drum)			FROM (feet) 0.0	TO 55.0	TOP OF CASING	GROUND SURFACE 1041.72
SEAL NA			FROM (feet)	TO	LOGGED BY Jonathan Boxerman	
FILTER PACK NA			FROM (feet)	TO	CHECKED BY Earl James, RG #4544	
REMARKS Borehole located in Wastewater Treatment System Area adjacent to sump (6-feet 6-inches deep).						

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
10:04	W1-1-1.5	Δ	0.5	50/6	BZ=0.1 to 0.3	2	Concrete, 5-inches.	SP		
10:08	W1-4.5-5	Δ	0.5 0.2	65/6	S=1.0	4	SAND, Very dark grayish brown [2.5Y 3/2], sand (80, 10, 10), 10-15% fine gravel (rounded) up to 0.25-inches, <5% fines, loose, dry.			
10:13	W1-9.5-10	Δ	0.5 0.5 0.1	60/6	S=5.9	10	As above; medium grained sand component increasing (70, 20, 10).			
10:19	W1-15-15.5	Δ	0.5 0.5 0.3	27 50/2	S=1.8	16	Gravel increasing in cuttings. SAND WITH GRAVEL, Very dark grayish brown [2.5Y 3/2], sand (70, 20, 10), 30-40% gravel up to 2-inches diameter, no plasticity, loose, dry. Color change to dark olive brown [2.5Y 3/3]. As above.	SW		

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 11/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-1	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
10:28	W1-20-20.5	⌵	0.5 0.5	50/6	BZ=0.1 S=1.4	20	<u>SAND WITH GRAVEL</u> . Very dark grayish brown [2.5Y 3/2], sand (70, 20, 10), 30-40% gravel up to 2-inches diameter, no plasticity, loose, dry. (Continued)  As above.	SW			
						22					
10:41	W1-25-25.5	⌵	0.5 0.5 0.5	75/6	S=1.3	24	<u>SAND WITH SILT AND GRAVEL</u> . Olive brown [2.5Y 4/4], sand (60, 20, 20), 30% gravel to 1-inch (angular to subrounded), 5-15% fines, low plasticity, dry to moist.	SW-SM			
						26					
						28					
10:49	W1-30-30.5	⌵	0.5 0.5 0.1	75/6	S=2.4	30	<u>SILTY SAND</u> . Light yellowish brown [2.5Y 6/4], sand (95, 0, 5), <15% fine gravel, 30-40% silt, low plasticity, loose, dry.	SM			
						32					
11:31	W1-34.5-35	⌵	0.5 0.4	75/6	S=0.4	34	<u>SAND WITH GRAVEL</u> . Light olive brown [2.5Y 5/4], sand (80, 10, 10), 30-40% gravel (subrounded), <5% fines, no plasticity, loose. Drilling paused for 30 minutes, 12-inch diameter rock removed from auger bit.	SW			
						36					
						38					
11:43	W1-39.5-40	⌵	0.5 0.2	75/6	S=0.8	40	As above; sand (60, 20, 20), <5% fines.				
						42					
11:53		⌵	0.5 0.4	50/6	S=2.8	44	<u>SAND WITH SILT AND GRAVEL</u> . Olive brown [2.5Y 4/3], sand (75, 10, 15), 30-40% gravel (angular to rounded), 5-15% silt, low plasticity, loose, dry.	SW-SM			
						46					

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ E:\J.GDT 1/3/03

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EK1.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-1	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
11:57			0.5 0.3	60/6	S=2.4	48 50 52	<p>SAND WITH SILT AND GRAVEL. Olive brown [2.5Y 4/3], sand (75, 10, 15), 30-40% gravel (angular to rounded), 5-15% silt, low plasticity, loose, dry. (Continued)</p> <p>As above.</p>	SW-SM			
12:14			0.5	75/6	S=0.5	54 56 58 60 62 64 66 68 70 72 74	<p>SAND WITH GRAVEL. Olive brown [2.5Y 4/4], sand (80, 10, 10), 30-40% fine gravel (angular to subrounded), &lt;5% fines, no plasticity, loose, dry.</p> <p>Refusal at 55 feet due to rock. Total Depth = 55 feet.</p>	SW			

BOREHOLE AND WELL CONSTRUCTION PPWASIE.GPJ EKL.GDT 12/3/03



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-2	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/2/02	DATE COMPLETED 12/2/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 16.5
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 0.5	TO 16.5	TOP OF CASING	GROUND SURFACE 1041.46
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS Borehole located in Wastewater Treatment System Area.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
08:40	W2-1-1.5	Δ	0.5	50		2	Concrete, 6-inches. Baselock, 3-inches. SAND WITH GRAVEL, Very dark brown [10YR 2/2], sand (90, 5, 5), 25-35% fine gravel (subangular to subrounded), dry to moist.	SP		
08:50	W2-5-6	Δ	1	50		6	As above; color change to dark yellowish brown [10YR 4/4], dry.			
08:55	W2-10-11	Δ			B2=0	10	As above; decreasing gravel to 15-25%.			
09:05	W2-15-16	Δ	1 0.3	42 30		16	As above.			
Total Depth = 16.5 feet										

BOREHOLE AND WELL CONSTRUCTION PPWAS(E.GP) ERI.GDT 12/03



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-3	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/2/02	DATE COMPLETED 12/2/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 16
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 0.5	TO 16.0	TOP OF CASING	GROUND SURFACE 1040.87
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS Borehole located in Wastewater Treatment System Area.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:20	W3-1-2	∩	1	50		2	Concrete, 6-inches. Baserock, 3-inches. SILTY SAND, Very dark brown [10YR 2/2], fine grained sand, <5% fine gravel, 10-20% fines, dry to moist.	SM		
09:25	W3-5-5.5	∩	0.5	50		4	SILTY SAND WITH GRAVEL, gravel increasing to 10-20%.	SM		
09:35	W3-10.5-11.5	∩	1	50		10	SAND WITH GRAVEL, Dark yellowish brown [10YR 4/4], sand (80, 10, 10), dry.	SP		
09:45	W3-15-16	∩	1	50		16	As above. Total Depth = 16 feet.			



# Borehole & Well Construction Log



<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P				<b>BOREHOLE / WELL NAME</b> W-4			
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979				<b>PROJECT NAME</b> Price Pfister			
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)				<b>PROJECT NUMBER</b> A20034.03 Task 1			
<b>CONDUCTOR CASING</b>	NA	<b>DIAMETER (inches)</b>		<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b> 12/2/02	<b>DATE COMPLETED</b> 12/2/02
<b>BLANK CASING</b>	NA	<b>DIAMETER (inches)</b>		<b>FROM (feet)</b>	<b>TO</b>	<b>BOREHOLE DIAM (inches)</b> 7.8	<b>TOTAL DEPTH (feet)</b> 16
<b>PERFORATED CASING</b>	NA	<b>DIAMETER (inches)</b>		<b>FROM (feet)</b>	<b>TO</b>	<b>DATUM</b> NAD 1927	
<b>GROUT</b>	Enviroplug Bentonite chips medium (hydrated in place)			<b>FROM (feet)</b> 0.5	<b>TO</b> 16.0	<b>TOP OF CASING</b>	<b>GROUND SURFACE</b> 1041.65
<b>SEAL</b>	NA			<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen	
<b>FILTER PACK</b>	NA			<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544	

**REMARKS** Borehole located in Wastewater Treatment System Area.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:50	W4-1-2	⌵	1	50		2	Concrete, 8-inches. Baselock, 3-inches. SILTY SAND. Very dark brown [10YR 2/2], fine grained sand, no gravel, 10-20% silt, dry to moist.	SM		
10:00	W4-5-6	⌵	0.8	50	S=1.2	6				
10:05	W4-10-11	⌵	0.7	75		10	SAND WITH GRAVEL. Dark yellowish brown [10YR 4/4], sand is fine grained, 30-40% fine to coarse gravel to 1.5-inches diameter, dry. Driller notes gravel at 7 feet.	SP		
10:10	W4-15-16	⌵	1	50		16	As above.			
							Total Depth = 16 feet.			

BOREHOLE AND WELL CONSTRUCTION PRWASTE.GPJ EKL GBT 13303



# Borehole & Well Construction Log

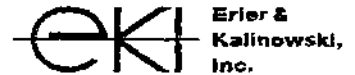
BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-5	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/2/02	DATE COMPLETED 12/2/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 16
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 0.5	TO 16.0	TOP OF CASING	GROUND SURFACE 1041.82
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS Borehole located in Wastewater Treatment System Area.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
10:40	W5-1.5-2.5	⌵	0.5 1	50		2	Concrete, 8-inches. Baselock, 3-inches. SILTY SAND, Very dark brown [10YR 2/2], 5-10% fine gravel (subangular to subrounded), 10-20% silt, dry to moist. Driller notes less gravel from 1.5 to 4.5 feet.	SM		
10:45	W5-5.5-6	⌵	0.5 0.5 0.3	11 16 33		6	SAND WITH GRAVEL, 25-35% fine gravel, 5% medium to coarse sand, dry.	SP		
10:55	W5-10-11	⌵	0.9			10				
11:00	W5-15-16	⌵	1	65		16	As above. Total Depth = 16 feet.			



# Borehole & Well Construction Log



BOREHOLE LOCATION		13500 Paxton St, Pacoima, CA - Building P			BOREHOLE / WELL NAME		W-6	
DRILLING COMPANY		West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME		Price Pfister	
DRILLING METHOD		Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER		A20034.03 Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	12/3/02	DATE COMPLETED	12/3/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)	7.6	TOTAL DEPTH (feet)	8
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM	NAD 1927		
GROUT	Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet)	0.5 TO 8.0	TOP OF CASING	GROUND SURFACE 1041.71		
SEAL	NA		FROM (feet)	TO	LOGGED BY	Logan Hansen		
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY	Earl James, RG #4544		

REMARKS Borehole located in Wastewater Treatment System Area adjacent to sump (4-feet deep).

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)				
09:25	W6-2-2.5	⊗	0.5 0.5 0.3	75		Concrete, 6-inches. Baselock, 3-inches. SILTY SAND, Very dark gray (10YR 3/1), <5% fine gravel, 10-20% fines, dry.	SM		
09:30	W6-5-6	⊗	0.9	60		SAND WITH GRAVEL, no color change, sand (80, 10, 10), 30-40% fine to coarse gravel up to 2-inches diameter, dry.	SP		
						Refusal due to gravel at 8 feet below ground surface. Total Depth = 8 feet.			

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 12/03



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-7	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet) TO	DATE STARTED 12/4/02	DATE COMPLETED 12/4/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet) TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 21
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet) TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)			FROM (feet) 0.5 TO 21.0	TOP OF CASING	GROUND SURFACE 1041.68
SEAL	NA		FROM (feet) TO	LOGGED BY Logan Hansen	
FILTER PACK	NA		FROM (feet) TO	CHECKED BY Earl James, RG #4544	

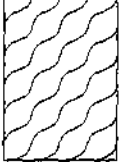
REMARKS Borehole located in Wastewater Treatment System Area adjacent to sump (2.5-feet deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
09:00	W7-2-2.5	Δ	0.5 0.2	18 50	BZ=0	2	Concrete, 12-inches.			
09:05	W7-5-5.5	Δ	0.5	18 50		4	SILTY SAND, Very dark gray [10YR 3/1], fine grained gravel, 10-20% silt, dry to moist.	SM		
09:10	W7-10-10.5	Δ	0.5	50		6	Piece of abandoned gray PVC pipe.			
						8	SAND WITH GRAVEL, no color change, sand (80, 10, 10), 20-30% gravel to 3-inches diameter from cuttings, dry.	SP		
09:25	W7-15-15.5	Δ	0.5 0.2	75	S=0.8	10				
						12				
						14				
						16				

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 11/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-7	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (pbmv)	DEPTH (feet)					
09:35	W7-20-20.5	Δ	0.5 0.3	50		20	<p><u>SAND WITH GRAVEL</u>, no color change, sand (80, 10, 10), 20-30% gravel to 3-inches diameter from cuttings, dry. (Continued)</p> <p>Brown [10YR 4/3]. As above.</p> <p>Total Depth = 21 feet.</p>	SP			
						22					
						24					
						26					
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PPWAS1E.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

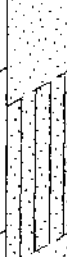
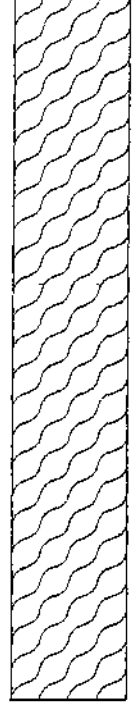
BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-8	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/3/02 DATE COMPLETED 12/3/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8 TOTAL DEPTH (feet) 31
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927
GROUT	Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 0.5	TO 31.0	TOP OF CASING GROUND SURFACE 1041.72
SEAL	NA		FROM (feet)	TO	LOGGED BY Logan Hansen
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544

REMARKS Borehole located in Wastewater Treatment System Area adjacent to clarifier (6-feet deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
10:00	W8-1-1.5	Δ	0.4 0	25 50		2	Concrete, 6-inches. Baselock, 3-inches. SILTY SAND, Black (10YR 2/1), fine grained sand, 10-20% fines, dry to moist.	SM		
10:10	W8-7.5-8.5	Δ	1 0.2	50		8	driller notes increase in gravel. SAND WITH GRAVEL, no color change, sand (80, 10, 10), 30-40% fine to coarse gravel up to 3-inches diameter (subangular to subrounded), 5-10% silt, dry.	SP		
10:15	W8-10-10.5	Δ	0.5 0.1	75		10				
					BZ=0	14				
10:25	W8-15-16	Δ	0.7	75		16	As above; color change to dark yellowish brown (10YR 4/4).			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-8	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
10:40	WB-25-26	I	0.5	60		20	SAND WITH GRAVEL, no color change, sand (80, 10, 10), 30-40% fine to coarse gravel up to 3-inches diameter (subangular to subrounded), 5-10% silt, dry. (Continued)	SP			
							22	SILTY SAND, Dark yellowish brown [10YR 4/4], no color change, 10-20% fines, 5-15% gravel. Driller notes increase in sand from 20-23 feet.			SM
10:45	WB-30-30.5	X	0.4	50		24	SAND WITH GRAVEL, Dark yellowish brown [10YR 4/4], sand (80, 10, 10), 30-40% fine to coarse gravel up to 3-inches diameter (subangular to subrounded), 5-10% silt, dry.	SP			
			0.4	15		26					
						28					
						30					
			0.5	50		32					
			0.3			34					
						36					
						38					
						40					
						42					
						44					
						46					
							Total Depth = 31 feet.				





**Erler &  
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## Borehole & Well Construction Log


<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P		<b>BOREHOLE / WELL NAME</b> W-9	
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979		<b>PROJECT NAME</b> Price Pfister	
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)		<b>PROJECT NUMBER</b> A20034.03 Task 1	
<b>CONDUCTOR CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>
<b>BLANK CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>
<b>PERFORATED CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>
<b>GROUT</b> Enviroplug Bentonite chips medium (hydrated in place)		<b>FROM (feet)</b> 0.5	<b>TO</b> 27.0
<b>SEAL</b> NA	<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen
<b>FILTER PACK</b> NA	<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544
<b>REMARKS</b> Borehole located in Wastewater Treatment System Area adjacent to clarifier (6-feet deep).			

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
10:15	W9-1.5-2.5	⌵	0.3 1	7 48		2	Concrete, 8-inches. Baserock, 4-inches. <b>SAND WITH GRAVEL</b> , Dark brown [10YR 3/3], fine grained sand, 20-30% fine gravel, dry.	SP		
10:20	W9-5-5.5	⌵	0.5 0.2	50		4 6	<b>SILTY SAND</b> , Very dark gray [10YR 3/1], 5-10% fine gravel.  <b>SAND WITH GRAVEL</b> , color as above, sand (80, 10, 10), 30-40% fine to coarse gravel, 5-10% fines, dry.	SM SP		
10:25	W9-10-11	⌵	0.9	50		10 12 14	gravel to 4-inches diameter in cuttings; very rocky, difficult drilling.  As above; color change to dark brown 10YR 3/3, gravel subangular to subrounded.			
10:35	W9-15-15.5	⌵	0.7 0.2	50		16				

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKL GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-9	
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION		
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)					DEPTH (feet)	
10:50	W9-25-26	⊗	0.8	50		20	<p><u>SAND WITH GRAVEL</u>, color as above, sand (80, 10, 10), 30-40% fine to coarse gravel, 5-10% fines, dry. (Continued)</p> <p>As above.</p>	SP			
		⊥	0.5 0.3	55		22					
						24	<p>As above.</p>				
						26					
						28	<p>Refusal due to rocks. Total Depth = 27 feet.</p>				
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building P					BOREHOLE / WELL NAMEW-10		
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979					PROJECT NAMEPrice Pfister		
DRILLING METHODHollow-Stem Auger (Limited Access Rig)					PROJECT NUMBERA20034.03 Task 1		
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED12/4/02	DATE COMPLETED12/4/02	
BLANK CASINGNA		DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)32.5	
PERFORATED CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927		
GROUTEnviroplug Bentonite chips medium (hydrated in place)			FROM (feet)2.0	TO32.5	TOP OF CASING		GROUND SURFACE1040.12
SEALNA			FROM (feet)	TO	LOGGED BYLogan Hansen		
FILTER PACKNA			FROM (feet)	TO	CHECKED BYEarl James, RG #4544		

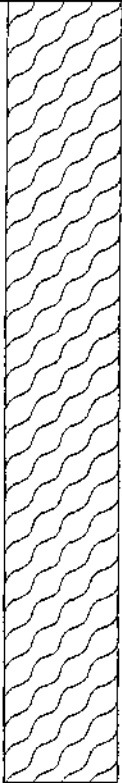
REMARKS Borehole located in Wastewater Treatment System Area in 1.5 foot deep trench adjacent to clarifier (5-feet deep).

SAMPLES							USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
						1.5-foot deep trench.			
						Concrete, 5.5-inches.			
						Baselrock, 3-inches.			
14:30	W10-2.5-3	Δ	0.4	20		2	SM		
				50		4			
						SILTY SAND, Very dark gray [10YR 3/1], small amount of pale green (5G 7/2) material in sample, fine grained sand, few gravels, 10-20% silt, dry to moist, no chemical odor noticed.			
						6	SP		
						SAND WITH GRAVEL, color as above, sand (80, 10, 10), 20-30% fine to coarse gravel to 2-inches diameter in cuttings (subangular to subrounded), dry. Large pieces of black PVC pipe in cuttings, pale green material as above in cuttings.			
						8			
						10			
14:45	W10-11.5-12	Δ	0.4	50		12			
						14			
						16			
						As above; color change to dark yellowish brown [10YR 3/4]			
14:55	W10-21.5-22	Δ	1	70					
			0.5						

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKJ GDT 12/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-10	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
15:05	W10-21.5-22	Δ	0.5 0.3	30		20 22 24	SAND WITH GRAVEL. color as above, sand (80, 10, 10), 20-30% fine to coarse gravel to 2-inches diameter in cuttings (subangular to subrounded), dry. (Continued)  As above.	SP			
15:10	W10-26.5-27	Δ	0.4	60		26 28 30	As above.				
15:20	W10-31.5-32.5	Δ	0.7	60		32 34 36 38 40 42 44 46	Large rock in bottom of sampler. Total Depth = 32.5 feet.				

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log




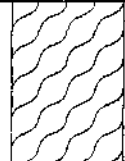
<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P				<b>BOREHOLE / WELL NAME</b> W-11			
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979				<b>PROJECT NAME</b> Price Pfister			
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)				<b>PROJECT NUMBER</b> A20034.03 Task 1			
<b>CONDUCTOR CASING</b>	NA	<b>DIAMETER (inches)</b>		<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b>	<b>DATE COMPLETED</b>
<b>BLANK CASING</b>	NA	<b>DIAMETER (inches)</b>		<b>FROM (feet)</b>	<b>TO</b>	<b>BOREHOLE DIAM (inches)</b> 7.8	<b>TOTAL DEPTH</b> 21 (feet)
<b>PERFORATED CASING</b>	NA	<b>DIAMETER (inches)</b>		<b>FROM (feet)</b>	<b>TO</b>	<b>DATUM</b> NAD 1927	
<b>GROUT</b>	Enviroplug Bentonite chips medium (hydrated in place)			<b>FROM (feet)</b> 0.5	<b>TO</b> 21.0	<b>TOP OF CASING</b>	<b>GROUND SURFACE</b> 1041.80
<b>SEAL</b>	NA			<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen	
<b>FILTER PACK</b>	NA			<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544	
<b>REMARKS</b> Borehole located in Wastewater Treatment System Area adjacent to lamella/sump (6-feet deep).							

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
08:50	W11-2-3	Δ	0.3 0	50	BZ=0	2	Concrete, 7-inches.  SAND WITH GRAVEL. Very dark grayish brown [10YR 3/2], sand (80, 10, 10), 35-45% fine to coarse gravel up to 6-inches diameter in cuttings (subangular), dry.	SP		
09:00	W11-5.5-6	Δ	0.5 0.5	60		6				
09:10	W11-10-11	Δ	1	70		10	As above.			
09:15	W11-16-16.5	Δ	0.3 0.5 0.5	70		16	As above; color change to dark yellowish brown [10YR 4/4].			

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-11	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
09:25	W11-20-21	⚡	1	70		20	<p><b>SAND WITH GRAVEL</b>, Very dark grayish brown [10YR 3/2], sand (80, 10, 10), 35-45% fine to coarse gravel up to 6-inches diameter in cuttings (subangular), dry. (Continued)</p> <p>As above.</p>	SP			
						22	Total Depth = 21 feet.				
						24					
						26					
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GUT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P			BOREHOLE / WELL NAME W-12		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/4/02 DATE COMPLETED 12/4/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8 TOTAL DEPTH (feet) 18
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927
GROUT	Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 2.0	TO 18.0	TOP OF CASING GROUND SURFACE 1040.12
SEAL	NA		FROM (feet)	TO	LOGGED BY Logan Hansen
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544

REMARKS Borehole located in Wastewater Treatment System Area in open 1.5-foot deep pit near western wall of area.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
							1.5-foot open pit.			
						2	Concrete, 8-inches.			
11:50	W12-3-4	Δ	0.8	30		3	<u>SILTY SAND</u> , Very dark gray [10YR 3/1], dry to moist.	SM		
				38		4				
						6	<u>SAND WITH GRAVEL</u> , color as above, sand (70, 15, 15), 40-50% gravel to 4-inches diameter in cuttings, cuttings become very rocky at 5 feet bgs.	SP		
12:00	W12-7.5-8	Δ	0.5 0.5 0.3	75	S=0.9	8				
						10				
12:05	W12-12-13	Δ	1	70		12	<u>SAND WITH GRAVEL</u> , color as above.	SW		
						14				
12:15	W12-17-18	Δ	0.8	70		16	<u>SAND WITH GRAVEL</u> , color as above.	SP		

Total Depth = 18 feet.



# Borehole & Well Construction Log





BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-13	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA		DIAMETER (inches)	FROM (feet) TO	DATE STARTED 12/4/02	DATE COMPLETED 12/4/02
BLANK CASING NA		DIAMETER (inches)	FROM (feet) TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 20.5
PERFORATED CASING NA		DIAMETER (inches)	FROM (feet) TO	DATUM NAD 1927	
GROUT Enviropug Bentonite chips medium (hydrated in place)			FROM (feet) 0.5 TO 20.5	TOP OF CASING	GROUND SURFACE 1041.65
SEAL NA			FROM (feet) TO	LOGGED BY Logan Hansen	
FILTER PACK NA			FROM (feet) TO	CHECKED BY Earl James, RG #4544	
REMARKS Borehole located in Wastewater Treatment System Area adjacent to sump (5-feet deep).					

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
12:40	W13-2-3	Δ	0.7	28		2			
		I	0	20		4			
12:45	W13-5-5.5	Δ	0.5	50		6			
		I	0.3			8			
12:50	W13-10-10.5	Δ	0.5	18		10			
		I		50		12			
12:55	W13-15-15.5	Δ	0.5	50		14			
		I				16			



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-13	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
13:40	W13-20-20.5	Σ	0.4			20	SAND WITH GRAVEL, color as above, sand (80, 10, 10), 30-40% fine to coarse gravel, 5-10% silt, dry. (Continued) As above.	SP			
						22	Total Depth = 20.5 feet.				
						24					
						26					
						28					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PPWASTE GPJ EKI.GDT 1/3/03





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# Borehole & Well Construction Log

<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P				<b>BOREHOLE / WELL NAME</b> W-14			
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979				<b>PROJECT NAME</b> Price Pfister			
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)				<b>PROJECT NUMBER</b> A20034.03 Task 1			
<b>CONDUCTOR CASING</b> NA		<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b> 12/4/02	<b>DATE COMPLETED</b> 12/4/02	
<b>BLANK CASING</b> NA		<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>BOREHOLE DIAM (inches)</b> 7.8	<b>TOTAL DEPTH (feet)</b> 11	
<b>PERFORATED CASING</b> NA		<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATUM</b> NAD 1927		
<b>GROUT</b> Enviroplug Bentonite chips medium (hydrated in place)			<b>FROM (feet)</b> 0.5	<b>TO</b> 11.0	<b>TOP OF CASING</b>	<b>GROUND SURFACE</b> 1041.77	
<b>SEAL</b> NA			<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen		
<b>FILTER PACK</b> NA			<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544		
<b>REMARKS</b> Borehole located in Wastewater Treatment System Area.							

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
16:00	W14-1-2	Δ	1	50		2	Concrete, 8-inches.			
		Δ				2	Basereck, 3-inches			
		Δ				2	SAND WITH GRAVEL, Brown (10YR 4/3), sand (80, 10, 10), 20-30% fine to coarse gravel, 5% fines, dry.	SP		
16:05	W14-5-5.5	Δ	0.2	60		4				
		Δ				6				
		Δ				8				
16:10	W14-10-11	Δ	0.8	60		10				
		Δ				10				
		Δ				12	Total Depth = 11 feet.			
		Δ				14				
		Δ				16				



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAMEW-15			
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister			
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1			
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED12/5/02	DATE COMPLETED12/5/02	
BLANK CASINGNA		DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)29	
PERFORATED CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927		
GROUTEnviropug Bentonite chips medium (hydrated in place)			FROM (feet)3.0	TO29.0	TOP OF CASING		GROUND SURFACE1039.09
SEALNA			FROM (feet)	TO	LOGGED BYLogan Hansen		
FILTER PACKNA			FROM (feet)	TO	CHECKED BYEarl James, RG #4544		


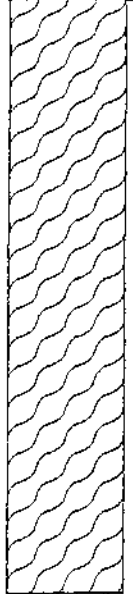

REMARKS Borehole located in Wastewater Treatment System Area in piping trench (2-feet 6-inches deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)				
						2	In piping trench, 2-feet 6-inches deep.			
						4	Concrete, 6-inches.			
07:50	W15-3.5-4	∅	0.5	70		4	Baselock, 3-inches.	SP		
							SAND WITH GRAVEL. Very dark gray (10YR 3/1), sand (70, 15, 15), 20-30% fine to coarse gravel to 4-inches diameter in cuttings (subangular to subrounded), 5-10% fines, dry.			
						6				
07:55	W15-7.5-8.5	∅	1	60		8				
			0.3			10				
						12				
08:00	W15-12.5-13.5	∅	1	50		14	Color change to very dark grayish brown (10YR 3/2), dry.			
						16				
			0.5	65						

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 12/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-15	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
08:10	W15-22.5-23		0.5 0.3	65		20	<p><u>SAND WITH GRAVEL</u>, Very dark gray [10YR 3/1], sand (70, 15, 15), 20-30% fine to coarse gravel to 4-inches diameter in cuttings (subangular to subrounded), 5-10% fines, dry. (Continued)</p>	SP			
						22					
						24					
						26					
08:15	W15-28-29		0.5 1	50		28					
							Total Depth = 29 feet.				
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-16	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/5/02	DATE COMPLETED 12/5/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 29
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 3.0	TO 29.0	TOP OF CASING	GROUND SURFACE 1039.10
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

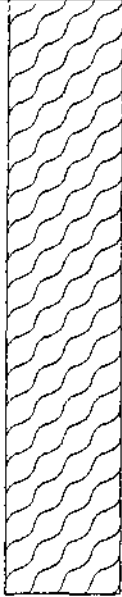
REMARKS Borehole located in Wastewater Treatment System Area in piping trench (2-feet 8-inches deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
08:55	W16-8-9	I				2	In piping trench, 2-feet 8-inches deep.			
						3	Concrete, 7-inches.			
			0.4	20	BZ=0	4	Baselock, 3-inches.			
			0.5	50	S=0.9	4	SAND WITH SILT AND GRAVEL, Very dark gray [10YR 3/1], sand (60, 20, 20), 30-40% fine to coarse gravel to 4-inches diameter in cuttings (subangular to subrounded), 10-20% silt, dry to moist.	SP		
09:00	W16-13-14	I				6				
			0.5	50		8				
			1			10				
						12				
09:00	W16-13-14	I				12				
			0.3	25		14	Color change to dark grayish brown [10YR 4/2], dry.			
			1	50		16				
		T	0.5	60						

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-16	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)					
09:15	W16-22.5-23	I	0.4			20	As above. <u>SAND WITH SILT AND GRAVEL</u> . Very dark gray [10YR 3/1], sand (60, 20, 20), 30-40% fine to coarse gravel to 4-inches diameter in cuttings (subangular to subrounded), 10-20% silt, dry to moist. (Continued)	SP			
		I	0.5 0.3	50		22 24 26					
09:20	W16-28-29	I	0.3 1	60		28	As above.				
							Total Depth = 28 feet.				
						30 32 34 36 38 40 42 44 46					

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P				<b>BOREHOLE / WELL NAME</b> W-17	
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979				<b>PROJECT NAME</b> Price Pfister	
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)				<b>PROJECT NUMBER</b> A20034.03 Task 1	
<b>CONDUCTOR CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b> 12/2/02	<b>DATE COMPLETED</b> 12/2/02
<b>BLANK CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>BOREHOLE DIAM (inches)</b> 7.8	<b>TOTAL DEPTH (feet)</b> 33.5
<b>PERFORATED CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATUM</b> NAD 1927	
<b>GROUT</b> Enviroplug Bentonite chips medium (hydrated in place)		<b>FROM (feet)</b> 0.5	<b>TO</b> 33.5	<b>TOP OF CASING</b>	<b>GROUND SURFACE</b> 1040.04
<b>SEAL</b> NA		<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen	
<b>FILTER PACK</b> NA		<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544	

**REMARKS** Borehole located in Wastewater Treatment System Area in 2-foot deep open pit approximately 3 feet west of sump (7-feet deep).

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
					BZ=0	2	2-foot deep open pit.			
						2	Concrete, 6-inches.			
							Baselock, 4-inches.			
		I	0.1	75	S=0.5	4	SAND WITH GRAVEL. Very dark brown [10YR 2/2], sand (90, 5, 5), 30-40% fine gravel to 0.75-inches diameter (subangular to subrounded), dry to moist.	SP		
							Poor recovery due to gravel.			
		I	0	50		6				
						8				
						10				
12:10	W17-10.5-11.5	Δ	0.7			12	As above; very dark grayish brown [10YR 3/2], 10-15% medium to coarse grained sand, 5% fines, dry.			
						14				
						16				
12:20	W17-17-17.5	Δ	0.5	50			As above.			

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-17	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
12:25	W17-22-23		0.3			20	<b>SAND WITH GRAVEL.</b> Very dark brown (10YR 2/2), sand (90, 5, 5), 30-40% fine gravel to 0.75-inches diameter (subangular to subrounded), dry to moist. (Continued)  As above.	SP			
			1	50	22						
			0.3		24						
			0.5	50		26	As above.				
			0.5		28						
			0.5		30						
12:35	W17-32-330		1	50		32	As above.				
			0.2		34						
		Total Depth = 33.5 feet.									
						36					
						38					
						40					
						42					
						44					
						46					



# Borehole & Well Construction Log

<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P		<b>BOREHOLE / WELL NAME</b> W-18	
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979		<b>PROJECT NAME</b> Price Pfister	
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)		<b>PROJECT NUMBER</b> A20034.03 Task 1	
<b>CONDUCTOR CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b> TO	<b>DATE STARTED</b> 12/5/02 <b>DATE COMPLETED</b> 12/5/02
<b>BLANK CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b> TO	<b>BOREHOLE DIAM (inches)</b> 7.8 <b>TOTAL DEPTH (feet)</b> 17.5
<b>PERFORATED CASING</b> NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b> TO	<b>DATUM</b> NAD 1927
<b>GROUT</b> Enviroplug Bentonite chips medium (hydrated in place)		<b>FROM (feet)</b> 2.0 TO 17.5	<b>TOP OF CASING</b> <b>GROUND SURFACE</b> 1040.01
<b>SEAL</b> NA		<b>FROM (feet)</b> TO	<b>LOGGED BY</b> Logan Hansen
<b>FILTER PACK</b> NA		<b>FROM (feet)</b> TO	<b>CHECKED BY</b> Earl James, RG #4544

**REMARKS** Borehole located in Wastewater Treatment System Area in 1-foot 8-inch deep pit adjacent to trench (2-feet, 8-inches deep).


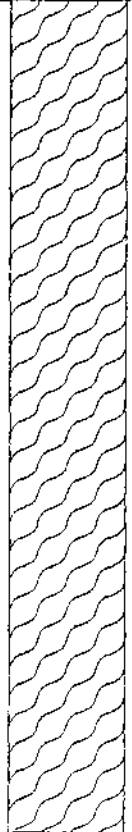
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmw)	DEPTH (feet)			
						Open pit, 1-foot 8-inches deep.			
						2 Concrete, 15-inches.			
						Baselock, 1-inch.			
10:15	W18-4-4.5	Δ		28	S=0.4	4 SAND WITH GRAVEL, Very dark gray (10YR 3/1), sand (60, 20, 20), 20-30% fine to coarse gravel, dry to moist.	SP		
				50					
10:20	W18-6.5-7.5	Δ	1	50	BZ=0	6			
						8			
						10			
10:30	W18-12-12.5	Δ	0.5	75		12 Color change to brown (10YR 4/3), 30-40% fine to coarse gravel up to 4-inches diameter in cuttings, dry.			
			0.5						
			0.5			14 As above; gravel subangular to subrounded.			
						16			
10:45	W18-16.5-17.5	Δ	0.8	50		As above.			
						Total Depth = 17.5 feet.			



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAMEW-19			
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister			
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1			
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED12/5/02	DATE COMPLETED12/5/02	
BLANK CASINGNA		DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)15.5	
PERFORATED CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927		
GROUTEnviropiug Bentonite chips medium (hydrated in place)			FROM (feet)0.5	TO15.5	TOP OF CASING		GROUND SURFACE1041.57
SEALNA			FROM (feet)	TO	LOGGED BYLogan Hansen		
FILTER PACKNA			FROM (feet)	TO	CHECKED BYEarl James, RG #4544		

**REMARKS** Borehole located in Wastewater Treatment System Area adjacent to 2-foot 8-inch deep pit/trench.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
14:10	W19-2-2.5	Δ	0.3	7 18 50		2	Concrete, 12-inches.  Baserock, 3-inches. <b>SAND WITH GRAVEL.</b> Very dark gray (10YR 3/1), sand (80, 10, 10), 30-40% fine to coarse gravel to 5-inches diameter in cuttings, dry.	SP		
14:15	W19-5-6	Δ	1	50		6				
14:25	W19-10-10.5	Δ	0.5 0.2	60		10	color change to brown (10YR 4/3), increasing gravel to 35-45%, dry.			
14:30	W19-15-15.5	Δ	0.5	70		14	As above.			
						16	Total Depth = 15.5 feet.			



# Borehole & Well Construction Log



BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-20	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/2/02	DATE COMPLETED 12/2/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 25
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 3.5	TO 25.0	TOP OF CASING	GROUND SURFACE 1039.97
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

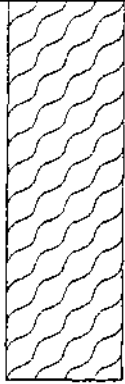
REMARKS Borehole located in Wastewater Treatment System Area in 2-foot 8-inch deep trench.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
14:10	W20-5-6	Δ	0.5	18		2	2-foot 8-inch deep pit.			
			0.5	50		4	Concrete, 12-inches.			
						4	Baselock, 4-inches.			
							SAND WITH GRAVEL, Very dark gray [10YR 3/1], fine to coarse sand, 10-20% fine to coarse gravel, 5-10% fines, very soft, dry to moist.	SP		
14:15	W20-9-9.5	Δ	0.5	50		6	As above.			
						8				
						10				
						12				
14:20	W20-14.5-15	Δ	0.5	50		14	As above.			
			0.5			15				
			0.3			16				

BOREHOLE AND WELL CONSTRUCTION PPWASTE GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-20	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
14:30	W20-19-20	⌵	0.5	65		20	<p><b>SAND WITH GRAVEL.</b> Very dark gray [10YR 3/1], fine to coarse sand, 10-20% fine to coarse gravel. 5-10% fines, very soft, dry to moist. (Continued) possible green discoloration, color change to dark grayish brown [10YR 4/2], fine grained sand component increasing (80, 10, 10), not as soft as above, dry.</p>	SP			
		⌵	0.5			22					
14:40	W20-24-24.5	⌵	0.5	50		24	no green discoloration visible.				
		⌵	0.2			26	Total Depth = 25 feet.				
						26					
						30					
						32					
						34					
						36					
						38					
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PFWASTE.GPJ EMLGDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-21		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/2/02	DATE COMPLETED 12/2/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 27
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT	Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 3.5	TO 27.0	TOP OF CASING	GROUND SURFACE 1039.68
SEAL	NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

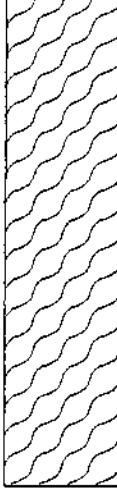
REMARKS Borehole located in Wastewater Treatment System Area in 2-foot 8-inch deep trench.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
15:05	W21-4-5	⊗	0.5	50	BZ=0 S=0.7	2	2-feet 8-inch deep pit.			
						2	Concrete, 10-inches.			
						4	Baselock, 4-inches.			
		⊗	0.5			4	SAND WITH GRAVEL. Very dark gray [10YR 3/1], sand (80, 10, 10), 10-20% fine to coarse gravel, 5-10% fines, very soft, moist.	SP		
15:15	W21-9.5-10	⊗	0.5	75		6				
		⊗	0.3			8				
						10				
						12				
15:20	W21-14-15	⊗	0.6	50		14	As above.			
						16				

BOREHOLE AND WELL CONSTRUCTION PPWAS(E,GPJ,EKI,GDI) 1/3/03



# Borehole & Well Construction Log

PROJECT NAME Price Pfister						PROJECT NUMBER A20034.03 Task 1		BOREHOLE / WELL NAME W-21	
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmw)				
15:25	W21-19-20	⌵	0.7	50		20	<p><u>SAND WITH GRAVEL</u>, Very dark gray [10YR 3/1], sand (80, 10, 10), 10-20% fine to coarse gravel, 5-10% fines, very soft, moist. (Continued) As above.</p>	SP	
						22			
15:30	W21-24-25	⌵	0.7	50		24	As above.		
						26			
						28	Refusal due to gravel. Total Depth = 27 feet.		
						30			
						32			
						34			
						36			
						38			
						40			
						42			
						44			
						46			

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKLGD1 12/03



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-22	
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister	
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1	
CONDUCTOR CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/5/02	DATE COMPLETED 12/5/02
BLANK CASING NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 28
PERFORATED CASING NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet) 2.0	TO 28.0	TOP OF CASING	GROUND SURFACE 1040.07
SEAL NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

REMARKS Borehole located in Wastewater Treatment System Area in 1-foot 7-inch deep trench.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
							1-foot 7-inches deep pit.			
						2	Concrete, 8-inches.			
							Baselock, 3-inches.			
12:05	W22-3.5-4	Δ	0.5	8		4	SAND WITH SILT AND GRAVEL. Very dark gray [10YR 3/1], sand (80, 10, 10), 20-30% fine to coarse gravel, 10-20% fines, dry to moist.	SP		
		Δ	0.2	6						
		Δ		8						
12:10	W22-6.5-7	Δ	0.5	60		6				
						8				
						10				
12:15	W22-11.5-12.5	Δ	0.8	107		12	Color change to brown [10YR 4/3], 30-40% fine to coarse gravel up to 2-inches diameter in cuttings (subangular to subrounded), dry.			
						14				
						16				
12:20	W22-16.5-17	Δ	0.5	70			As above.			
		Δ	0.5							



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-22	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
12:30	W22-22-22.5	Δ	0.3 0.5	50		20 22 24 26	<p>SAND WITH SILT AND GRAVEL. Very dark gray [10YR 3/1], sand (80, 10, 10), 20-30% fine to coarse gravel, 10-20% fines, dry to moist. (Continued)</p> <p>As above.</p> <p>As above.</p>	SP			
12:45	W22-26.5-27.5	Δ	1 0.1	65		28 30 32 34 36 38 40 42 44 46	<p>Total Depth = 28 feet.</p>				

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAMEW-23		
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAMEPrice Pfister		
DRILLING METHODHollow-Stem Auger (Limited Access Rig)				PROJECT NUMBERA20034.03 Task 1		
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED12/2/02	DATE COMPLETED12/2/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)19
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927	
GROUTEnviroplug Bentonite chips medium (hydrated in place)			FROM (feet)3.5	TO19.0	TOP OF CASING	GROUND SURFACE1040.00
SEALNA			FROM (feet)	TO	LOGGED BYLogan Hansen	
FILTER PACKNA			FROM (feet)	TO	CHECKED BYEarl James, RG #4544	

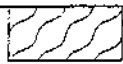
**REMARKS** Borehole located in Wastewater Treatment System Area in 2-foot 8-inch deep pit.

SAMPLES							USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	QVM (ppmv)	DEPTH (feet)			
16:05	W23-4-5	X	0.4 0.5	50		2-foot 8-inches deep trench.			
						Concrete, 10-inches.			
						Baselock, 4-inches			
						SILTY SAND, Very dark gray [10YR 3/1], 5-10% fine to coarse sand, fine gravel, 10-20% fines, dry to moist.	SM		
16:20	W23-13-13.5	I	0.3	50		SAND WITH GRAVEL, no color change observed from cuttings, 15-25% fine to coarse gravel, fine sand, dry to moist.	SP		
						As above; poor recovery due to gravel.			
16:20	W23-13-13.5	X	0.3	50		As above; poor recovery due to gravel.			

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-23	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
16.25	W23-18-19	X	0.7				As above.	SP			
							Total Depth = 19 feet.				
							20				
							22				
							24				
							26				
							28				
							30				
							32				
							34				
							36				
							38				
							40				
							42				
							44				
							46				

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION		13500 Paxton St, Pacoima, CA - Building P			BOREHOLE / WELL NAME		W-24	
DRILLING COMPANY		West Hazmat Drilling, C-57 Lic. # 554979			PROJECT NAME		Price Pfister	
DRILLING METHOD		Hollow-Stem Auger (Limited Access Rig)			PROJECT NUMBER		A20034.03 Task 1	
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	12/5/02	DATE COMPLETED	12/5/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)	7.8	TOTAL DEPTH (feet)	12
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM	NAD 1927		
GROUT	Enviroplug Bentonite chips medium (hydrated in place)		FROM (feet)	2.0 TO 12.0	TOP OF CASING	GROUND SURFACE 1039.98		
SEAL	NA		FROM (feet)	TO	LOGGED BY	Logan Hansen		
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY	Earl James, RG #4544		

REMARKS Borehole located in Wastewater Treatment System Area in 1-foot 7-inches deep trench.

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
							1-foot 7-inches deep pit.			
						2	Concrete, 7-inches.			
							Baselock, 3-inches.			
11:45	W24-3-3.5	Δ	0.5	60		4	SAND WITH GRAVEL, Brown (10YR 4/3), sand (60, 20, 20), 40-50% fine to coarse gravel to 4-inches diameter in cuttings (subangular to subrounded), dry.	SP		
						6				
11:25	W24-6.5-7.5	Δ	1	60		8				
						10				
						12	As above.			
11:30	W24-11.5-12	Δ	0.3	60		14	Total Depth = 12 feet.			
						16				

BOREHOLE AND WELL CONSTRUCTION PF WAS IE.GFJ EKI.GDT 12/3/03



# Borehole & Well Construction Log

<b>BOREHOLE LOCATION</b> 13500 Paxton St, Pacoima, CA - Building P				<b>BOREHOLE / WELL NAME</b> W-25			
<b>DRILLING COMPANY</b> West Hazmat Drilling, C-57 Lic. # 554979				<b>PROJECT NAME</b> Price Pfister			
<b>DRILLING METHOD</b> Hollow-Stem Auger (Limited Access Rig)				<b>PROJECT NUMBER</b> A20034.03 Task 1			
<b>CONDUCTOR CASING</b>	NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATE STARTED</b>	12/6/02	<b>DATE COMPLETED</b> 12/6/02
<b>BLANK CASING</b>	NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>BOREHOLE DIAM (inches)</b>	7.8	<b>TOTAL DEPTH (feet)</b> 22
<b>PERFORATED CASING</b>	NA	<b>DIAMETER (inches)</b>	<b>FROM (feet)</b>	<b>TO</b>	<b>DATUM</b> NAD 1927		
<b>GROUT</b>			<b>FROM (feet)</b> 0.5	<b>TO</b> 22.0	<b>TOP OF CASING</b>		<b>GROUND SURFACE</b> 1041.73
<b>SEAL</b>	NA		<b>FROM (feet)</b>	<b>TO</b>	<b>LOGGED BY</b> Logan Hansen		
<b>FILTER PACK</b>	NA		<b>FROM (feet)</b>	<b>TO</b>	<b>CHECKED BY</b> Earl James, RG #4544		

## REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
07:35	W25-1.5-2.5		0.8	55		1	Concrete, 7-inches.	SP		
						2	SAND WITH GRAVEL, Black (10YR 2/1), sand (80, 10, 10), 20-30% gravel (subangular), 5-10% fines.			
						3				
						4				
07:40	W25-5-5.5		0.4	60		5				
						6				
						7				
						8				
						9				



# Borehole & Well Construction Log



PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-25	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
07:50	W25-10-11		1	60	BZ=0	11	<b>SAND WITH GRAVEL.</b> Black [10YR 2/1], sand (80, 10, 10), 20-30% gravel (subangular), 5-10% fines. (Continued) As above; fine gravel to 2-inches diameter in cuttings, chemical odor noticed.	SP			
						12					
						13					
						14					
07:55	W25-15-15.5		0.5	60	S=1.6	15	As above; gradual color change to very dark gray [10YR 3/1].				
			0.2		BZ=0	16					
						17					
						18					
08:05	W25-20-21		1	70	S=1.1	20	As above; chemical odor noticed over bin of cuttings (OVM = 0).  As above; some dark greenish gray [5GY 4/1] mottling (10%). Refusal due to rocks. Total Depth = 22 feet.				
						21					
						22					
						23					
						24					
						25					

BOREHOLE AND WELL CONSTRUCTION PPWASTE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log

BOREHOLE LOCATION 13500 Paxton St, Pacoima, CA - Building P				BOREHOLE / WELL NAME W-26		
DRILLING COMPANY West Hazmat Drilling, C-57 Lic. # 554979				PROJECT NAME Price Pfister		
DRILLING METHOD Hollow-Stem Auger (Limited Access Rig)				PROJECT NUMBER A20034.03 Task 1		
CONDUCTOR CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED 12/5/02	DATE COMPLETED 12/5/02
BLANK CASING	NA	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches) 7.8	TOTAL DEPTH (feet) 36.5
PERFORATED CASING	NA	DIAMETER (inches)	FROM (feet)	TO	DATUM NAD 1927	
GROUT Enviropug Bentonite chips medium (hydrated in place)			FROM (feet) 0.5	TO 36.5	TOP OF CASING	GROUND SURFACE 1041.66
SEAL	NA		FROM (feet)	TO	LOGGED BY Logan Hansen	
FILTER PACK	NA		FROM (feet)	TO	CHECKED BY Earl James, RG #4544	

## REMARKS

SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
16:05	W26-1.5-2.5	Δ	0.9	43	BZ=0	2			
						Concrete, 7-inches.			
						SILTY SAND, Black (N2), fine grained sand, sand grades to by 3.5 feet bgs, 20-30% silt, dry to moist.	SM		
16:10	W26-5-5.5	Δ	0.4	20		4			
				50		SAND WITH SILT AND GRAVEL, no color change, sand (80, 10, 10), 10-20% fine to coarse gravel, little coarse gravel, 10-20% silt, chemical odor noticed.	SP		
16:20	W26-10-11	Δ	1		S=0.8	10			
						As above; strong chemical odor noticed.			
16:25	W26-15-15.5	Δ	0.5	75	S=0	15			
			0.4			As above; strong chemical odor noticed.			



# Borehole & Well Construction Log



Erier &  
Kalinowski,  
Inc.

PROJECT NAME		Price Pfister		PROJECT NUMBER		A20034.03 Task 1		BOREHOLE / WELL NAME		W-26	
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
16:30	W26-20-20.5	Δ	0.5	50	BZ=0	20	SAND WITH SILT AND GRAVEL, no color change, sand (80, 10, 10), 10-20% fine to coarse gravel, little coarse gravel, 10-20% silt, chemical odor noticed. (Continued)	SP			
		Δ	0.3			22	As above.				
						24					
16:35	W26-25-26	Δ	0.8	60		26	As above.				
						28					
		I	0.5	50		30	Color change to very dark gray [10YR 3/1].				
		I	0.5			32					
						34	Color change to brown [10YR 4/3], very rocky, difficult drilling.				
17:00	W26-35.5-36.5	Δ	0.5	65		36					
		Δ	1			38	Total Depth = 36.5 feet.				
						40					
						42					
						44					
						46					

BOREHOLE AND WELL CONSTRUCTION PPWASIE.GPJ EKI.GDT 1/3/03



# Borehole & Well Construction Log



Erler &  
Kalinowski,  
Inc.

BOREHOLE LOCATION13500 Paxton St, Pacoima, CA - Building P					BOREHOLE / WELL NAMEW-27		
DRILLING COMPANYWest Hazmat Drilling, C-57 Lic. # 554979					PROJECT NAMEPrice Pfister		
DRILLING METHODHollow-Stem Auger (Limited Access Rig)					PROJECT NUMBERA20034.03 Task 1		
CONDUCTOR CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATE STARTED12/3/02	DATE COMPLETED12/3/02	
BLANK CASINGNA		DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)7.8	TOTAL DEPTH (feet)18	
PERFORATED CASINGNA		DIAMETER (inches)	FROM (feet)	TO	DATUMNAD 1927		
GROUTEnviroplug Bentonite chips medium (hydrated in place)			FROM (feet)2.0	TO18.0	TOP OF CASING		GROUND SURFACE1039.94
SEALNANA			FROM (feet)	TO	LOGGED BYLogan Hansen		
FILTER PACKNANA			FROM (feet)	TO	CHECKED BYEarl James, RG #4544		
REMARKSBorehole located in Wastewater Treatment System Area in 1-foot 8-inches deep trench.							

SAMPLES							USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)			
						1-foot 8-inches deep trench.			
						2 Concrete, 6-inches.			
						Baselock, 4-inches.			
07:40	W27-3-4	⊗	0.5	18		SAND WITH GRAVEL. Very dark gray [10YR 3/1], sand (70, 15, 15), 25-35% fine to coarse gravel up to 4-inches diameter (subangular to subrounded), dry to moist.	SP		
		⊗	0.1	50					
						4			
						6			
07:45	W27-7-7.5	⊗	0.5	50		8 As above.			
		⊗	0.2						
						10			
		⊗	0.3	50		12			
08:00	W27-13.5-14.5	⊗	0.8	50		14 As above: slow drilling, poor recovery due gravel, sampler shoe plugged by rock.			
		⊗							
						16			
08:05	W27-17.5-18	⊗	0.5	75		As above: color change to dark yellowish brown [10YR 4/6], gravel increasing to 30-40%, hard, dry.			
		⊗	0.4						

Total Depth = 18 feet.



**APPENDIX B**

**REGIONAL AND LOCAL  
GEOLOGIC AND HYDROGEOLOGIC INFORMATION**

**Plates**

- 1 Upper Los Angeles River Area: Vicinity and Location Map (ULARA, 2002b)
- 9 Simulated Groundwater Contours, Spring (April) 2001 (ULARA, 2002b)
- 10 Simulated Groundwater Contours, Fall (September) 2001 (ULARA, 2002b)

**Figures (prepared by EKI)**

- B1 Approximate Groundwater Elevation Contours for 13 August 2002
- B2 Approximate Groundwater Elevation Contours for 7 November 2002
- B3 Approximate Groundwater Elevation Contours for 18 December 2002
- B4 Approximate Groundwater Elevation Contours for 6 January 2003











